

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

DOCKET NO. 79-300-E - ORDER NO. 80-474

August 29, 1980

IN RE:	Application of Duke Power Company)	ORDER
	for Authority to Adjust and)	APPROVING RATES
	Increase its Electric Rates and)	AND CHARGES
	Charges.)	

I.

INTRODUCTION

This matter comes before the South Carolina Public Service Commission (hereinafter "the Commission") by way of the verified Application, dated and filed on August 1, 1979, of Duke Power Company (hereinafter "the Company"), whereby the Company sought certain relief in the nature of the approval of certain adjustments in the general rates and charges for the electrical services rendered to its retail customers in South Carolina, effective September 1, 1979. The Company's Application was filed pursuant to S. C. Code Ann., § 58-27-860 (1976) and R.103-830 et seq. of the Commission's Rules and Regulations. According to the Company's Application, the proposed rates and charges, which were attached to the Application and incorporated therein as Exhibit B, would have produced additional revenues of approximately \$25,819,000, had they been in effect for the twelve months period ending December 31, 1978. The additional revenues represented an approximate increase of 6.7% in the annual gross operating revenues generated by the Company's previously approved base rates.¹

¹The Company's presently authorized rates and charges for South Carolina retail electric operations were approved by Order No. 79-230, issued on May 17, 1979, in Docket No. 78-189-E, IN RE: Application of Duke Power Company. The current fuel component in the Company's base rates was authorized by Order No. 80-355, issued on May 28, 1980, in Docket No. 77-394-E, IN RE: Duke Power Company - Adjustment of Base Rates for Fuel Costs.

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On August 20, 1979, the Commission issued its Order No. 79-434 in the instant Docket, whereby the Commission determined, inter alia, that a formal proceeding should be commenced in this matter and that a public hearing should thereupon be conducted. Consequently, the Commission suspended the effective date of the rates and charges proposed in the Company's Application for a period of twelve (12) months unless a final decision sooner made disposition of the issues raised in the Application.² The Commission's action was authorized by S. C. Code Ann., § 58-27-870 (1976).

In addition, Order No. 79-434 established the twelve months period ending June 30, 1979, as the test year in the instant proceeding. In accordance with that determination, the Commission required the Company to submit revised exhibits for its Application to incorporate the Company's operating experience and the effect of the proposed rates and charges for the established test year. Thereafter, in accordance with the provisions of Order No. 79-434, the Company duly filed such revised operating information on October 15, 1979.

Furthermore, the Commission's Order No. 79-434 expressed the Commission's intention to undertake the consideration of the propriety of the implementation of certain ratemaking standards identified in Section 111(d),³ and the concept of "lifeline" rates as described in Section 114,⁴ of the Public Utility Regulatory Policies Act of 1978 (hereinafter "PURPA"). (16 U.S.C. §§ 2601 et seq. 1978).

²The suspension of the effective date of the proposed rates and charges would consequently expire after September 1, 1980.

³Those standards relate to electrical utility ratemaking and include cost of service, declining block rates, time-of-day rates, seasonal rates, interruptible rates, and load management techniques. See, 16 U.S.C. § 2621 (1978). See, Section XI, infra.

⁴See, 16 U.S.C. § 2624 (1978). See, Section XI, infra.

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On September 6, 1979, the Company filed an Undertaking, dated September 5, 1979, with the Commission whereby the Company notified the Commission of its intention to place into effect for bills rendered on and after October 1, 1979, the rates and charges proposed in the Application herein, the effective date of which had been suspended by the operation of Order No. 79-434. In accordance with the terms of the Undertaking, the Company bound itself to refund to the affected customers in the manner prescribed by the Commission the amount by which the rates and charges so placed into effect exceeded any increase in rates finally determined to be just and reasonable, together with interest at the rate of nine percent (9%) per annum. The Company's action was authorized by the provisions of S. C. Code Ann., § 58-27-880 (1976).

On September 12, 1979, the Commission issued its Order No. 79-485, in which the Commission, after a review of the Undertaking and of the Company's financial solvency and net worth, found the Undertaking to be sufficient to protect the interests of the Company's customers and of the public at large and to secure such refunds with interest as might be ordered by the Commission upon the conclusion of this proceeding. The Commission thereupon approved the Undertaking and required the Company to publish notice of the implementation of the rates and charges in effect pursuant to the terms of the Undertaking. On September 27, 1979, the Company submitted certain affidavits of publication demonstrating its compliance with the provisions of Order No. 79-485 for notification to the public.

On September 13, 1979, the Commission's Executive Director instructed the Company to cause to be published a prepared Notice of Filing once a week for three consecutive weeks in newspapers

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of general circulation in the Company's service area in South Carolina. The Notice of Filing indicated the nature of the Company's Application and advised all interested parties desiring to participate in the proceeding of the manner and time in which to file the appropriate pleadings. The Company was likewise required to notify directly all customers affected by the proposed rates and charges. On November 15, 1979, the Company furnished affidavits demonstrating that the Notice of Filing had been duly published in accordance with the instructions of the Executive Director.⁵ In addition, the Company certified that a copy of the Notice of Filing had been mailed to each customer affected by the rates and charges proposed in the Company's Application.

The Commission Staff pursuant to R.103-853 of the Commission's Rules and Regulations, filed with the Commission and served upon the Company Information Data Request No. I, dated October 25, 1979, whereby the Staff sought the production of certain additional information relative to the Company's Application and operations. The Staff thereafter served on the Company and filed Information Data Request No. II, dated January 22, 1980. The Company subsequently submitted to the Commission and the Staff its responses to the Information Data Requests.⁶

On January 11, 1980, the Commission issued its Order No. 80-12, whereby the Commission scheduled the hearing contemplated by Order No. 79-434 to commence on May 27, 1980. Order No. 80-12 likewise required the Company, on or before April 1, 1980, to file with the Commission and serve on all parties of record

⁵The Notice of Filing was published in the State Register, Vol. 3, No. 20, dated September 26, 1979.

⁶The Company's responses to the Information Data Requests were introduced into evidence during the hearing in this proceeding. See, Hearing Exhibit No. 1.

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copies of the testimony and exhibits of the Company's intended witnesses.

Thereafter, on February 19, 1980, the Commission issued its Order No. 80-95, whereby the Commission rescheduled the commencement of the hearing previously set by Order No. 80-12 to July 7, 1980.

Thereafter, pursuant to notice duly provided in accordance with applicable provisions of law and with the Commission's Rules and Regulations, a public hearing relative to the matters asserted in the Company's Application was commenced in the offices of the Commission on July 7, 1980, and thereafter concluded on July 25, 1980.⁷ Steve C. Griffith, Jr., Esquire, George W. Ferguson, Jr., Esq., Edward L. Flippen, Esquire, and Howard L. Burns, Esquire, represented the Company; Steven W. Hamm, Esquire, Raymon E. Lark, Jr., Esquire, and M. Elizabeth Chastain, Esquire, represented the Intervenor, the Consumer Advocate for South Carolina (hereinafter "the Consumer Advocate"); Harold F. Daniels, Esquire, and Robert Guild, Esquire, represented the Intervenor, the Piedmont Utility Consumers Association (hereinafter "the Association"); Henry R. MacNicholas, Esquire, represented the Intervenor, Monsanto Company and the South Carolina Textile Manufacturers Association (hereinafter "the SCTMA"); M. John Bowen, Jr., Esquire, likewise represented the SCTMA; Joey Davis appeared pro se; and Robert T. Bockman, Esquire, General Counsel, and Cheryl Ann Walker Davis, Esquire, represented the Commission and the Commission Staff.⁸ Owens-Corning Fiberglas Corporation filed a Petition to Intervene in the instant proceeding on

⁷Public hearings were held in Greenville, South Carolina, on August 8, 1980, and in Anderson, South Carolina, on August 11, 1980, for the receipt of testimony and exhibits from consumers of the Company's retail electric service. See, Tr., Vols. 34 and 35, respectively.

⁸See, Order No. 80-434, issued in the instant proceeding, on July 28, 1980.

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July 7, 1980, but did not appear directly in the conduct of the hearing in this matter.

On July 14, 1980, the Commission issued its Order No. 80-409, whereby the Commission denied certain relief sought by the Association in the nature of a determination of that Intervenor's eligibility for the recovery of its fees and costs which were incurred in the conduct of this matter, and for an interim award for such costs.⁹ Order No. 80-409 indicated that the determination of the eligibility, if any, of a party for the recovery of reasonably incurred fees and costs would be reserved for the final disposition of the issues in this proceeding.¹⁰

The record in this proceeding includes thirty-five (35) volumes of transcribed testimony and thirty-four (34) separate exhibits, which pertain to various aspects of the Company's South Carolina retail electric operations, the Company's need for capital and the cost of capital, the Company's authorized and its requested rates of return, various accounting adjustments and rate design proposals, including the PURPA ratemaking standards. Subsequent to the close of the hearing, briefs were duly filed and served by the Company and the SCTMA. The Consumer Advocate filed a brief in the form of a proposed decision.

In the consideration of the evidence in the record now before us, the Commission has remained mindful of our statutory responsibility, delineated by S. C. Code Ann., §§ 58-27-870, et seq. (1976) to determine the lawfulness and reasonableness of rate

⁹The relief was purportedly sought pursuant to certain provisions of Section 122 of PURPA, 26 U.S.C. § 2632 (1978).

¹⁰While the Association was given leave to submit a statement of its costs and fees herein (Tr., Vol. 31, p. 79), the record of this proceeding indicates that such statement was filed on August 27, 1980. In accordance with our subsequent determinations herein, however, the Commission considers the submission of such statement to be immaterial and without effect. See, Section XI, infra.

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adjustments proposed by electrical utilities. In the due exercise of that responsibility and for the reasons more fully discussed herein, the Commission has determined that an overall rate of return on the Company's South Carolina retail electric operations of 10.21% based on adjusted test year operations is fair and reasonable, and that in order to have the opportunity to achieve such return, the Company would have required additional annual revenue of \$23,369,000. Founded upon the Company's test year operating and financial experience as adjusted, the Commission has concluded that the allocation of the additional revenue, as provided in Section X herein, meets the applicable statutory criteria and is consistent with other pertinent legal pronouncements. Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed.2d 333 (1944); Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 43 S.Ct. 675, 67 L.Ed. 1176 (1923); Southern Bell Telephone & Telegraph Co. v. Public Service Commission of South Carolina, 270 S.C. 590, 244 S.E.2d 278 (1978).

II.

THE COMPANY

Duke Power Company is an electric utility operating in the States of North Carolina and South Carolina, where it is engaged in the generation, transmission, distribution and sale of electricity to the public for compensation. The Company's retail operations in South Carolina are subject to the jurisdiction of this Commission, pursuant to S. C. Code Ann., §§ 58-27-10 et seq. (1976). The Company's retail operations in North Carolina are subject to the jurisdiction of the North Carolina Utilities

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Commission (hereinafter "the NCUC"); the Company's wholesale operations in North Carolina and in South Carolina are subject to the jurisdiction of the Federal Energy Regulatory Commission (hereinafter "the FERC").

The Company's service area consists of a territory of in excess of 20,000 square miles, located in the Piedmont section of the Carolinas, from the Virginia-North Carolina border, near Eden, North Carolina, to the South Carolina-Georgia border, near Anderson, South Carolina. Within that service area, the Company provides electric service to over 1,250,000 customers. During the test period, nearly 87% of the Company's operating revenues were attributable to its retail electric services.¹¹ Of the total kilowatt hours produced during the test period in this proceeding, the Company generated 69% from coal-fired units, 26% from nuclear units and 5% from hydroelectric and oil-fired units.¹² The Company's generating capability as of December 31, 1979, totalled 12,048MW, comprised of 7,417MW of coal-fired generation, 2,580MW from nuclear units, 1,452MW from hydroelectric units, and 599MW from internal combustion turbines. The Company operates an integrated transmission network and distribution system throughout its service area, and its facilities are interconnected with the facilities of adjacent electrical utilities to provide for the interchange of energy.

The Company's South Carolina service area includes seventeen counties in which are located the municipalities of Anderson, Greenwood, Greenville, Spartanburg, York and Lancaster. Approximately twenty-seven percent (27%) of the Company's total annual revenues from its test year electric operations was derived from sales subject to the jurisdiction of the Commission.¹³

¹¹Hearing Exhibit No. 1, Data Request No. 1, item 57.

¹²See, Hearing Exhibit No. 1, Data Request No. 1, item 71, p. 4.

¹³Hearing Exhibit No. 1, Data Request No. 1, item 57.

The Company's currently approved rates and charges for its South Carolina retail operations were authorized by the Commission's Order No. 79-230, entered in Docket No. 78-189-E, on May 17, 1979.¹⁴ The Company's Application herein maintains that those previously approved rates and charges do not provide an opportunity to earn the rates of return which the Commission found to be fair and reasonable. The Company's Application referred to the "inescapable fact" that the Company "is confronted with continually rising costs of operating and maintaining its present plant and with it the necessity to construct new facilities, and to finance that construction, at a time when construction costs continue to increase and capital costs remain at very high levels."¹⁵ In describing the instant proceeding as a "make whole" case, the Company's President and Chief Operating Officer, William S. Lee, stated:

This case is predicated on increasing our rates to reflect increased costs which have prevented us from earning even the lower end of the rate of return range previously found to be fair and reasonable. The 12.77% return on equity produced on the basis of the updated test period is far below the level that will allow the Company to sell its securities on reasonable terms. We have chosen to focus this rate case on the need to compensate for increased operating costs which have occurred driving downward the return on common equity actually earned on South Carolina jurisdictional operations. More than ever before, utility stockholders are experiencing greater risks which..., we feel are not reflected in the 12.77% return on common equity. If Duke Power Company is to attract large amounts of capital on reasonable terms for the continuation of even its reduced construction program, it is imperative that the Commission set Duke's rates at a level that will enable the Company to actually earn from utility operations a rate of return which is competitive with other investments of comparable risk.

(Tr., Vol. 2, Lee, p. 34).

¹⁴On October 8, 1979, the NCUC approved an increase in certain rates and charges which would have produced additional revenues on the Company's North Carolina retail operations in excess of \$28,314,000 on adjusted figures for a test year ending December 31, 1978. See, NCUC Docket No. E-7, Sub 262, 31 P.U.R. 4th 363 (1979).

¹⁵Application of Duke Power Company, filed on August 1, 1979, at p. 4.

III.

CONSTRUCTION PROGRAM

As an electrical utility, the Company has the statutory obligation to furnish "adequate, efficient and reasonable service." S. C. Code Ann., § 58-27-1510 (1976). The Commission has a concomitant responsibility to require the continuous provision of "reasonable, safe, adequate and sufficient" service. S. C. Code Ann., § 58-27-1520 (1976). As we have consistently recognized in previous decisions, in an age of extensive planning and protracted construction time for electrical generation, transmission and distribution facilities, the Commission must preserve an awareness of the interrelationship among projected demands for electrical energy, the proposed construction programs and capital requirements necessary to meet those demands, and the maintenance of adequate reserve margins to address unforeseen contingencies.¹⁶

The record of the instant proceeding includes extensive testimony with regard to the Company's projected construction budgets and the anticipated growth in energy sales and in peak demand as independently forecasted by the Company and by the Commission Staff¹⁷ as well as the peak demand forecast performed by the Consumer Advocate's witness.¹⁸ In our analysis of the full spectrum of issues herein, the Commission has given thorough consideration to the significance of the projected construction expenditures which are designed to address the reasonable forecasted demands for electrical energy in the Company's service area

¹⁶See, e.g., Order No. 80-375, issued on June 30, 1980, in Docket Nos. 79-196-E and 79-197-G, IN RE: Applications of South Carolina Electric and Gas Company, at p. 15 and the decisions therein cited at fn. 27.

¹⁷See, Tr., Vol. 2, Lee, p. 49, Vol. 3, Lee, pp. 16-19, 21-23, 43-47; Vol. 15, Bailey, pp. 126-129; Vol. 16, Bailey, pp. 4-46; Vol. 17, Bailey, pp. 3-22. See, Hearing Exhibit No. 1, Data Request No. I, item 28, for an explanation of the forecasting methodology employed by the Company; and Hearing Exhibit No. 14, for an explanation of the methodology utilized by the Commission Staff.

¹⁸Tr., Vol. 25, Legler, pp. 3-64; Hearing Exhibit No. 24.

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while providing for the maintenance of a sufficient reserve of generating capacity to continue reliability and adequacy of service.

The Company's witness, William H. Grigg, Vice President, Legal and Finance, described the Company's projected capital expenditures for the 1980-1982 period, and indicated that the proposed three-year budget called for expenditures of approximately \$2.2 billion for additional electrical generation, transmission, distribution and general plant facilities, and for the purchase of nuclear fuel. (Tr., Vol. 8, Grigg, p. 22) The Company's anticipated construction budget for that period incorporates the effect of the deferral of the completion dates for the Company's Cherokee Nuclear Station units,¹⁹ which resulted in a reduction in the 1980-1982 construction budget of approximately \$850,000,000. As the Company's witness Grigg indicated: "A combination of unprecedented high inflation, high interest rates, a market price for the Company's common stock well below its book value, and an unacceptably low level of cash generation virtually assured that the previously planned construction program could not be reasonably financed." (Tr., Vol. 8, Grigg, p. 23) The Company estimates that approximately fifty percent (50%) of its total capital requirements for the 1980-1982 period will be satisfied from internal sources, including retained earnings, depreciation, amortization and funds temporarily available through tax deferrals.

The Company's projected annual construction expenditures for the 1983-1988 period appear in the following table:

¹⁹The scheduled completion date for Cherokee Unit No. 1 was delayed from 1987 to 1990; the scheduled completion date for Cherokee Unit No. 2 was delayed "at least three years" from 1989 to 1992. (Tr., Vol. 2, Lee, p. 64)

TABLE A
GROSS CONSTRUCTION DOLLAR EXPENDITURES
(Estimated)

1983	\$ 1,258,000,000
1984	1,285,000,000
1985	1,657,000,000
1986	1,826,000,000
1987	2,110,000,000
1988	<u>2,216,000,000</u>
TOTAL	<u>\$10,352,000,000</u>

(Source: Hearing Exhibit No. 1, Data Request I, item 17)

The projected construction budget clearly represents a substantial expenditure of capital. The Company's construction budget through 1988 reflects the proposed completion of four nuclear generation units each designed to produce generating capacity in excess of 1,100MW.

The Company's proposed construction projects and the associated capital expenditures represent the Company's calculated response to the anticipated need for electrical energy imposed by the demands of its present and prospective customers. By necessity, that response incorporates a considerable degree of long-range planning. The availability of a reasonable and reliable evaluation of the future demands for energy, upon which an electrical utility's construction program and expenditures are founded, is an integral element in the Commission's constant analysis of the service supplied by that utility. (Tr., Vol. 3, Lee, p. 43) This Commission has frequently recognized the significance of rational forecasting of demand and the deleterious effects of inaccurate projections. The significance of sales and demand forecasts is predicated upon the obligation of electrical utilities to supply sufficient service to meet the present and reasonably anticipated demands for energy. That obligation is complemented

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by the Commission's oversight responsibility which must be exercised to provide that the availability of energy is accomplished at just and reasonable rates in order to balance the interests of the utility and its investors, the ratepayers and the general public. The establishment and maintenance of adequate generation and delivery systems are complicated by the necessity to develop construction plans and energy forecasts as well as financing programs over extended periods of time. Patently, overestimates of future demand will promote the construction of capacity which is neither used nor useful in providing electrical service, the costs of which present and future ratepayers would be called upon to bear. On the other hand, a demand forecast which underestimates future growth may well produce critical energy shortages, loss of electrical service, with the consequential injury to the physical and economic health of the State of South Carolina and her citizens. (Hearing Exhibit No. 14, p. 1) Such adverse possible consequences require the Company and the Staff to exercise considerable caution in the manner of forecasting demand, and likewise require the Commission to maintain close scrutiny over the projected and actual results of such forecasting.²⁰

The Company's plans for its construction program are founded principally upon forecasts of peak demand growth trends, derived through the analysis of regression models for energy and sales demands, which recognizes the influence of economic variables and the effects of weather.²¹ Shortly prior to the hearing in this proceeding, the Company revised its previously projected energy sales and peak demand forecasts based upon the incorporation of recently

²⁰See, Order No. 80-375, supra, at pp. 17-18; and Order No. 79-230, supra, at pp. 11-12; and Order No. 78-404, issued on July 13, 1978, in Docket Nos. 77-354-E and 18,361 and 18,367, IN RE: Application of Carolina Power & Light Company.

²¹See, Hearing Exhibit No. 1, Data Request I, item 28.

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compiled data. According to the Company's witness Lee, the Company has forecasted a growth in its regular sales of 4.5% through 1989 and at the same rate of 4.5% through 1995.²² For its summer peak demand, the Company anticipates a growth rate of 4.0% through 1989 and a growth rate of 4.3% thereafter. The winter peak demand is expected to increase at a rate of approximately 4.2% through 1990. (Tr., Vol. 3, Lee, pp. 16-17)

The Commission Staff's witness, R. Dow Bailey, an economist in the Commission's Research Department, offered testimony relative to the Staff's independent forecasts of energy sales and peak demand for the Company. The Commission Staff's study²³ was intended to provide an additional method whereby the Commission could evaluate effectively the forecasts of energy sales and peak demand utilized by the Company. The study was designed, inter alia, to address the sensitivity of energy sales to changes in levels of economic activity, the prices of electricity and the prices and availability of substitute fuels. In addition, the Staff's methodology reflected the system's sensitivity to weather. The Staff's study established the respective, anticipated energy usage for each customer class based on separate energy models for such classes, incorporating an econometric analysis founded on the use of independent variables identified through the use of regression techniques. The Commission Staff analysis derives three separate projections of energy sales which represented high, medium and low growth scenarios.

²²Compare, Hearing Exhibit No. 1, Data Request I, item 28, at p.6.

²³See, Hearing Exhibit No. 14.

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The Commission Staff's review produced three district forecasts of peak demand, based upon the use of projected load factors and a combination of assumptions imposed upon the independent variables. The medium forecast of peak demand produced growth rates at an annual rate of increase in the range of 6.3% to 6.6% for the period through 1990.

While the Staff's econometric analysis did not incorporate directly the effects of conservation measures, improved technologies or load control programs, the energy sales and peak demand estimates were adjusted to reflect the realization of the projected energy savings through the operation of the Company's load management programs. (Tr., Vol. 16, Bailey, pp. 5-6)

The Consumer Advocate's witness, Dr. John B. Legler, reviewed the Company's projected peak demand figures and provided an alternative peak load forecast for the period ending in 1990.²⁴ The forecast was derived using an econometric methodology in which peak load was related to economic variables and the effects of weather. Dr. Legler's methodology incorporated the influence of air conditioning saturation on historic growth and on future growth and peak loads. For the period ending in 1990, Dr. Legler projected a compound annual rate of growth in peak demand of approximately 5.4%. (Tr., Vol. 25, Legler, p.17)

The concept of the adequacy of the reserves of system generating capacity is integral to the process of load growth forecasting and the extent of system reliability. The record of this proceeding contains considerable testimony relative to the Company's projected reserves and underscores the relationship between the projections of peak demand growth and the availability of reasonable reserves.

²⁴Dr. Legler concluded that the Company's peak demand forecast was "reasonable", although he expressed "certain reservations" with regard to the Company's methodology. (Tr., Vol. 25, Legler, p.8)

The following table illustrates the Company's anticipated reserve margin available at peak demand incorporating the Staff's medium growth forecast, which reflects the effects of load management programs and interruptible load savings and which represents the latest projections of energy sales and load factor (Tr., Vol. 15, p.128):

TABLE B
RESERVE MARGINS

1980	22.2%
1981	27.8%
1982	15.4%
1983	27.1%
1984	30.4%
1985	25.1%
1986	29.1%
1987	22.4%
1988	15.6%
1989	9.6%
1990	14.4%

The Company's witness Lee articulated the Company's policy with regard to system reserve margins:

These are sophisticated analysis techniques that give you loss of load probability; but if you go through all of the sophistication, you'll find out that in the neighborhood of 25 percent reserve margin is considered prudent. When you get less than that, you are increasing the probability of not being able to meet the customers' load and having a brownout or rotating blackouts or having to turn away new industrial prospects.

(Tr., Vol. 3, Lee, pp.8-9)

The Commission acknowledges that the Company's forecasted available capacity for the period through 1990 indicates that the available reserves will not meet in several years the minimum reserve margin considered reasonable by the Company.²⁵ The Commission will remain

²⁵See, Hearing Exhibit No. 1, Data Request II, item 15. See, also, Hearing Exhibit No. 24, Schedule 8, and Tr., Vol. 25, Legler, p.43.

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concerned that the Company's anticipated system reserves in the latter part of the 1980's may constitute less than satisfactory levels of available capacity to enable the Company to meet the expected load growth and to maintain a sufficient margin to protect the Company's customers and the public interest at large. Our concern is intensified by the awareness that a theoretic calculation of available reserve capacity may well be even less satisfactory when operating conditions and circumstances combine to reduce "paper reserves" to narrower margins. Our analysis of the record before us herein only serves to underscore both the importance of concentrated load management programs²⁶ and the significance of a constant review and refinement of the applicable forecasting methodology combined with a cautious evaluation of forecasted energy sales and peak demand.

This Commission has stated on several previous occasions that it is axiomatic that even the most sophisticated and rigorous analysis of projected load requirements cannot precisely predict the effect of future events.²⁷ The Company likewise recognizes the imprecision inherent in such endeavors and consequently engages in systematic evaluations of its projections and makes adjustments in its construction program in concert with the findings of such analyses. This empirical review provides an element of flexibility to the construction program, given the extensive lead time required for the planning and construction of generation, transmission and distribution facilities, and thereby operates to balance the need for additional capacity with the extent of the projected demand.

²⁶ See, Tr., Vol. 2, Lee, p.49.

²⁷ See, e.g., Order No. 80-375, supra, at p.24; and Order No. 79-230, supra, at p.15; and Order No. 78-404, supra, at pp.16-17.

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The record in this proceeding and the Commission's findings thereon do not wed the Commission inextricably to the methodology or results of the forecasts of load growth presented by the Company, by the Staff, or by the Consumer Advocate. However, the Commission is of the opinion that the projections made by the Company, and independently derived by the Staff, and produced by the Consumer Advocate's witness represent expectations within a reasonable range for the purposes of this proceeding. The Commission finds it unnecessary to isolate an exclusive method or end result advanced by the witnesses herein which is more reliable or meaningful than the others presented in the record of this proceeding. Consequently, the Commission finds likewise reasonable the Company's general construction program, as premised upon the currently forecasted load growth. The Commission will continue to expect the Company to exercise the utmost care in reviewing and revising its forecasts of load growth and concomitant construction program. The Company, the Intervenor, and the general public can be assured that the Commission and Staff will continue to maintain the scrutiny and review demanded by the Commission's statutory responsibilities.

IV.

TEST YEAR

A fundamental principle of the ratemaking process is the establishment of a test year period. Ideally, such a period should be represented by the most recent twelve months preceding the date of filing a rate adjustment application for which data is available. While the rates and charges finally approved will have prospective effect only, this Commission has routinely adhered to the view that the immediate past experience, characterized by identifiable operating results for a complete

twelve months period, provides the most reliable guide for the immediate future. The reliance upon the test year concept, however, is not designed to preclude the recognition and use of other historical data which may precede or postdate the selected twelve month period.

Integral to the use of an average year, representing normal operating conditions to be anticipated in the future, is the necessity to make normalizing adjustments to the historic test year figures. Only those adjustments which have reasonable and definite characteristics, and which tend to influence reflected operating experience are made to give proper consideration to revenues, expenses and investments.²⁸ Adjustments may be allowed for items occurring in the historic test year, but which will not recur in the future; or to give effect to items of an extraordinary nature by either normalizing or annualizing such items to reflect more accurately their annual impact; or to give effect to any other item which should have been included or excluded during the historic test year.

In the instant proceeding, the Company's Application was based on actual operating experiences for the twelve months period ending December 31, 1978, and included financial and operating information for that period. As previously indicated,²⁹ the Commission's Order No. 79-434 established the test year in this proceeding to be the twelve months period ending June 30, 1979, and required the submission of the appropriate information to reflect that determination. The Commission Staff and the parties of record herein likewise offered their evidence generally within the context of that same test period. In consideration of the relative proximity of the commencement of this proceeding, the Commission finds the twelve months ending June 30, 1979, to be the reasonable period for which to make our ratemaking determinations herein.

²⁸Southern Bell, supra, 244 S.E. 2d at 284.

²⁹See, p.2, supra.

V.

RATE BASE

Pursuant to S. C. Code Ann., § 58-27-180 (1976), the Commission has the authority after hearing to "ascertain and fix" the value of the property of an electrical utility. In the context of a rate-making proceeding, such authority is exercised in the determination of the electrical utility's rate base.

For ratemaking purposes, the rate base is the total net value of the electrical utility's tangible and intangible capital or property value on which the utility is entitled to earn a fair and reasonable rate of return. The rate base, as allocated or assigned directly to the Company's South Carolina retail electric operations, is composed of the value of the Company's property used and useful in providing retail electric service to the public, plus construction work in progress, materials and supplies, an allowance for cash working capital, and property held for future use. The rate base computation incorporates reductions for the reserve for depreciation and amortization, accumulated deferred income tax (liberalized depreciation) and customer deposits. In accordance with its standard practice, the Accounting Department of the Utilities Division of the Commission Staff conducted an audit and examination of the Company's books, and verified all account balances from the Company's General Ledger, including rate base items, with plant additions and retirements. On the basis of this audit, the pertinent hearing exhibits, and the testimony contained in the record of the hearing, the Commission can determine and find proper balances for the components of the Company's jurisdictional rate base as well as the propriety of related accounting adjustments.

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For ratemaking purposes, this Commission has traditionally determined the appropriate rate base of the affected utility as of the end of the test period.³⁰ This Commission is among the majority of regulatory agencies which provides for the determination of a utility's rate base on a "year end" basis, a result which most reasonably coincides with the prospective operation of any ratemaking decision. The use of a "year end" rate base likewise serves to enhance the timeliness of the effect of such action and preserves the reliance on historic and verifiable accounts without resort to speculative or projected figures. Consequently, the Commission finds it most reasonable to retain its consistent regulatory practice herein and evaluate the issues in this proceeding founded on a rate base for the Company's South Carolina retail electric operations as of June 30, 1979.

When the rate base has been established, the Company's total operating income for return is applied to the rate base to determine what adjustments, if any, to the present rate structure are necessary to generate earnings sufficient to produce a fair rate of return. The rate base should reflect the actual investment made by investors in the Company's property and the value upon which stockholders will receive a return on their investment.

The Commission's determinations relative to the Company's rate base for its South Carolina retail electric operations appear in the following subsections:

³⁰ See, e.g., Order No. 80-375, supra, at p. 27; and Order No. 79-730, supra, at pp. 15-16; and Order No. 80-113, issued on March 5, 1980, in Docket No. 79-305-C, IN RE: Application of Southern Bell Telephone and Telegraph Company, at p. 14, and the decisions cited therein; and Order No. 79-230, supra, at p. 18.

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A. Plant in Service

The Commission has traditionally used the regulatory accounting methodology recognized as "original cost less depreciation" in the determination of the value of an electrical utility's plant in service. The record of the instant proceeding presents no justification for a departure from this methodology which was used by the Company and by the Staff in calculating the Company's gross plant in service "per books" of \$1,080,074,000 for its South Carolina retail electric operations.

The Consumer Advocate's witness Galligan proposed that the accumulated provision for amortization of nuclear fuel assemblies be increased by \$1,231,000, allocated to South Carolina retail electric operations to correspond to the increased fuel expense claimed by the Company for the annualization of "once through" nuclear fuel assemblies. Furthermore, the Consumer Advocate recommended an increase in the accumulated provision for amortization of nuclear fuel assemblies of \$261,000, allocated to South Carolina retail electric operations, for the annualization of the amortization of nuclear fuel disposal costs. The Commission is of the opinion, and so finds, that such adjustments should herein be approved, consistent with our previous ratemaking treatment of these issues.³¹

The Commission finds the adjustments proposed by the Consumer Advocate and the Commission Staff to be reasonable. Accordingly, the Commission finds the appropriate figure for the Company's gross plant in service for South Carolina retail electric operations to be \$1,078,562,000.

B. Reserve for Depreciation and Amortization

In determining the proper rate base for electrical utilities,

³¹The Commission Staff's witness, Sam C. Hammond, Accounting Manager, Utilities Division, likewise supported the proposed adjustments. (Tr., Vol. 18, Hammond, p. 40) Consistent with our treatment of the adjustments to the expenses for the "once through" nuclear fuel disposal costs and for amortization of nuclear fuel disposal costs, the Commission will reduce the Company's plant in service by \$1,248,000 and \$264,000, respectively. See, Hearing Exhibit No. 9 (Accounting Department), p. 18.

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the Commission uses the gross plant in service dedicated to providing public service as reduced by the reserve for depreciation and amortization. The reserve represents that portion of the utility's depreciable properties which has been consumed by previous use and recorded as depreciable property. The "per books" reserve allocated to the Company's South Carolina retail electric operations was \$357,300,000.

The Company and the Commission Staff recommended that the "per books" reserve for depreciation and amortization be adjusted by the addition of \$920,000 to correspond to the annualization of depreciation expense proposed by the Company, as allocated to the Company's South Carolina retail electric operations.³² The recommended adjustment included the annualization of the depreciation expense associated with the Company's proposed change in the depreciation rate from 3.57% to 4.0% for its nuclear generating facilities.³³

The Consumer Advocate's witness, Richard A. Galligan, proposed to restate the Company's depreciation reserve to reduce the rate base by an increase to the reserve of \$2,854,000 to incorporate a "deficiency in the accumulated depreciation reserve at the Company proposed 4.00 percent nuclear depreciation rate." (Tr., Vol. 25, Galligan, pp. 106, 119-120) Essentially, the Consumer Advocate's witness contends that the Company's proposal to adjust the depreciation rate from 3.57% to 4.0% on its nuclear generating plants mandates the proposed restatement of the depreciation reserve to reflect what the reserve would have been had depreciation been accrued during the past at the proposed depreciation rate.

³²See, Hearing Exhibit No. 4, p. 4; and Hearing Exhibit No. 9 (Accounting Department), p. 19. While the Company's witness, William R. Stimart, Vice President, Regulatory Affairs, expressed certain reservations with regard to the concept of the adjustment, the Company accepted the proposed treatment in acknowledgment of this Commission's previous ratemaking determinations. (Tr., Vol. 8, Stimart, pp. 13-14). See, e.g., Order No. 79-230, supra, at pp. 19-20.

³³See, Section IX, infra.

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Based upon the evidence in the record before us, the Commission is of the opinion, and so finds, that the adjustment proposed by the Company and by the Commission Staff should be adopted for ratemaking purposes herein. The addition to the depreciation reserve to embody the annualization of the test year depreciation expense represents the heretofore accepted ratemaking treatment by this Commission.³⁴ In addition, the logical extension of the position advanced by the Consumer Advocate's witness herein leads to the conclusion that present depreciation reserves can be increased, and present plant in service can be decreased, by a recomputation of depreciation expense. The Commission considers the proposal of the Consumer Advocate's witness to amount to an accounting practice which is dubious at best and clearly retroactive in effect. (Tr., Vol. 32, Stimart, pp. 71-72) The adoption of the instant proposal would operate to deprive the Company's investors of the fair return on their original cost investment³⁵ and would be inconsistent with our previous characterization of the ratemaking purpose of the reserve for depreciation and amortization.³⁶

The Commission, therefore, finds that the proper figure for the Company's reserve for depreciation and amortization, as allocated to its South Carolina retail electric operations, is \$358,220,000.

The gross plant in service of \$1,078,562,000, less the reserve for depreciation and amortization of \$358,220,000, results in a net plant in service for the Company's South Carolina retail electric operations of \$720,342,000.

³⁴See, e.g., Order No. 79-230, supra, at p. 20 and the decisions cited therein at fn. 29.

³⁵See, Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, supra, at 606 (1944).

³⁶See, e.g., Order No. 80-375, supra, at pp. 28-29.

C. Construction Work in Progress

Pursuant to the Commission's Directive of November 13, 1974, which, inter alia, identified the rate base items considered appropriate by the Commission for electrical utilities, the reasonable and necessary costs of construction of utility plant not yet in service may be considered as a proper rate base item. Such costs are described as "construction work in progress" (hereinafter "CWIP"). This Commission has uniformly allowed CWIP to be included in an electrical utility's rate base, with an offset adjustment to total income for return by that portion of the allowance for funds used during construction (hereinafter "AFUDC") and income tax credit, which are attributable to the CWIP at the end of the test period. There is no evidence in the record of the instant proceeding which has caused the Commission to depart from, or modify, its previously adopted treatment for the inclusion of CWIP in the rate base herein for ratemaking purposes for the Company's South Carolina retail electric operations.

In the instant proceeding, the Company and the Commission Staff proposed to use the "per books" CWIP of \$569,916,000 as allocated to the Company's South Carolina retail electric operations, for rate-making purposes herein.³⁷ No party of record proposed an adjustment to the "per books" figure.

The Commission finds herein that CWIP is a proper element to be included in the Company's jurisdictional rate base, as offset by the appropriate adjustments to net operating income for return for AFUDC and the associated income tax credit.³⁸ On the basis of the

³⁷See, Hearing Exhibit No. 4, p. 4,; and Hearing Exhibit No. 9 (Accounting Department), p. 15.

³⁸See, Section IX, infra.

record before us, the proper figure for CWIP to be used for rate-making purposes for the Company's South Carolina retail electric operations in this proceeding is \$569,916,000.

D. Materials and Supplies

The Commission has traditionally considered "materials and supplies" to be a proper item to be included in an electric utility's rate base. One significant element of this generic item is the fuel supply inventory. In prior ratemaking proceedings, fuel stocks have been adjusted by increasing or decreasing this account by the dollar amount representing the Commission's determination of the reasonable capital outlay for an adequate supply inventory. That adjustment is based on the uncontroverted fact that the Company must expend considerable capital for fuel stocks to secure a reliable supply for the provision of adequate service. Since the costs of the inventory are not recovered until after the fuel is burned, the Company is permitted to earn a return on this inventory item, normalized to reflect test year costs.

The Company's "per books" materials and supplies for its South Carolina retail electric operations amounted to \$57,475,000. The Company and the Commission Staff proposed that such figure be adjusted to price the fuel inventory as of June 30, 1979, at the June 1979 purchase price of fuel received, a methodology which is consistent with previous decisions of the Commission.³⁹

In addition, the Company and the Commission Staff proposed to adjust the volume of the coal inventory for ratemaking purposes to a level equivalent to ninety (90) days, rather than the inventory on hand at the conclusion of the test year of approximately 106 days burn. The adjustment was recommended to retain consistency with the

³⁹ See, e.g., Order No. 80-375, supra, at p. 32.

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Company's established policy to maintain its coal inventory at the ninety-day level. (Tr., Vol. 8, Stimart, p. 14)⁴⁰ The proposed adjustment to the coal inventory level results in a reduction in the Company's jurisdictional rate base.

No other adjustments to the materials and supplies component of the Company's rate base were proposed by any party of record or by the Commission Staff.

The combined effect of the adjustments proposed by the Company and by the Commission Staff for the revaluation of the fuel inventory to reflect end of period price and for the restatement of the inventory level results in a reduction of \$6,229,000 in the materials and supplies component of the Company's jurisdictional rate base. Consequently, the Commission considers the amount of \$51,246,000 to be properly included in the Company's South Carolina retail rate base for ratemaking purposes in this proceeding.

E. Working Capital Allowance

The Commission has normally considered an allowance for working capital to be an appropriate item for inclusion in the rate base of an electric utility. By permitting a working capital allowance, the Commission acknowledges the requirement for capital outlay related to the routine operations of the utility.

While both the Company and the Commission Staff utilized the formula prescribed in the Commission's Directive of November 13, 1974, for the computation of the working capital allowance, the two parties reached slightly dissimilar results. The Commission Staff proposed a computation of the working capital allowance of \$14,314,000,

⁴⁰See, also, Order No. 80-375, supra, at p. 33, fn. 55.

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derived as follows: a cash allowance of \$25,755,000 (one-eighth of operating and maintenance expenses less net of purchased and interchange power and nuclear fuel expense), plus minimum bank balances of \$1,932,000 plus prepayments of \$1,062,000, less average tax accruals of \$14,435,000. The Company's proposed working capital allowance differed by some \$663,000 from that computed by the Staff because of various adjustments made by those parties to the Company's test year operating and maintenance expenses.⁴¹

The Consumer Advocate's witness Galligan proposed the adoption of a "balance sheet approach" to the computation of the Company's working capital requirements. (Tr., Vol. 25, Galligan, p. 122) The Consumer Advocate's witness adjusted the working capital allowance by a reduction of the Company's South Carolina retail rate base by approximately \$37,117,000 which was described as "excess" working capital proposed by the Company.⁴²

In a recent proceeding, the Commission rejected the substitution of the "balance sheet approach" for the previously approved and adopted methodology for the derivation of the working capital allowance component of a utility's rate base.⁴³ Based upon our review of the record herein, the Commission is not inclined to adopt that method proposed by the Consumer Advocate and thereby abandon the methodology which we have found fair and reasonable for the computation of the working capital allowance in

⁴¹ Compare, Hearing Exhibit No. 4, p. 4d; with Hearing Exhibit No. 9 (Accounting Department), p. 21.

⁴² The "excess" was calculated by deriving the Company's "actual working capital requirement", as computed by the Consumer Advocate's witness, and the sum of the materials and supplies component of the rate base and the working capital allowance proposed by the Company. See, Hearing Exhibit No. 25 (RGR-5).

⁴³ See, Order No. 80-113, supra, at p. 20. The Commission's ratemaking treatment of that issue is not the subject of the appeal of Order No. 80-113, See, Parker v. South Carolina Public Service Commission et al. (80-CP-40-1845).

numerous ratemaking proceedings. The Commission considers that the balance sheet methodology is characterized by several deficiencies which limit its usefulness for ratemaking purposes. The employment of the balance sheet in the computation of a working capital allowance involves the isolation of a single point in time or a series of separate points to reflect historic costs but which does not reflect either the nature of the "flow of funds" essential to the purpose of the working capital allowance or the current costs of service. (Tr., Vol. 32, Stimart, pp. 74-75) Furthermore, the balance sheet methodology ignores the fundamental concept that working capital is a function of the cost of service, not a product of account balances. In the ultimate analysis, the Commission considers the methodology described in our Directive of November 13, 1974, to constitute the preferable computation for the derivation of the working capital allowance.

In conclusion, in light of our approval of the adjustments to the Company's test year operating and maintenance expenses in Section IX, infra, and as a consequence of our determinations herein, the Commission considers that the appropriate figure for the working capital allowance, pertaining to the Company's South Carolina retail electric operations, is \$14,314,000, as computed by the Commission Staff.

F. Property Held for Future Use

The Company and the Commission Staff proposed to adjust the Company's rate base by a figure of \$145,000, to represent property held for future use, as allocated for the Company's South Carolina retail operations. While the Commission has normally excluded plant held for future use for ratemaking purposes, the analysis demonstrated that the property so included had been purchased for utility operations and the Commission herein finds the inclusion

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of the \$145,000 in the Company's rate base to be reasonable and warranted.⁴⁴

G. Accumulated Deferred Income Taxes

The accumulated reserves for liberalized depreciation constitute a form of cost-free capital, and, consequently, an element upon which the Commission feels investors are not entitled to earn a rate of return. The Company and the Commission Staff recommended that the Commission reduce the South Carolina retail electric rate base by \$89,117,000 for accumulated deferred income taxes. The Consumer Advocate proposed to adjust the "per books" accumulated deferred income tax by a reduction of \$1,087,000, which represents one-third of a surplus to the deferred income tax attributable to the recent change in the federal corporate income tax rate, effective on and after January 1, 1979, and for which the Consumer Advocate proposed to add to the Company's income. (Tr., Vol. 25, Galligan, p. 128). The Consumer Advocate's proposed adjustment to the Company's rate base was designed to reflect the recommended treatment of the purported surplus in the Company's test year operating income.

Based upon our disposition of the proposed adjustment to income,⁴⁵ the Commission is of the opinion, and so finds, that

⁴⁴See, Southern Bell, supra, in which the Supreme Court stated at pp. 283-4, that "...[a]lthough the Commission has consistently excluded property which is held by a utility for use in the future from the utility's rate base, we believe that the better rule of law would be to require a factual determination regarding each parcel of property, rather than arbitrarily excluding all such property from the rate base. If it be determined that such property was purchased to serve a future utility purpose, it should be treated as 'devoted to the public service', and included in the computation of the utility's rate base."

⁴⁵See, Section IX, infra.

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the proposed reduction in the Company's accumulated deferred income tax should not be adopted for ratemaking purposes in this proceeding.⁴⁶ Therefore, the appropriate amount to be utilized herein is the figure of \$89,117,000, as proposed by the Company and by the Commission Staff, allocated to the Company's South Carolina retail electric operations.

H. Customer Deposits

The amount representing customer deposits also is considered by this Commission to be an element on which the Company's investors are not entitled to earn a return, and should be excluded from the Company's rate base. The Commission finds that the rate base should be reduced by the amount of \$1,511,000, as proposed by the Company and by the Commission Staff. The Commission has treated the interest on customer deposits as an operating expense in computing the Company's rate of return.

I. Miscellaneous Proposed Adjustments

The Consumer Advocate's witness Galligan proposed an adjustment to reduce the Company's South Carolina retail electric rate base by \$2,434,000 to reflect operating reserves, which were characterized by that witness as "dollars available to the Company which have been provided by ratepayers through charges to costs of service prior to the anticipated need of the funds." (Tr., Vol. 25, Galligan, p. 120) The specific adjustment was directed at the Company's reserves for property insurance and nuclear liability insurance and for injuries and damages.⁴⁷

⁴⁶See, Order No. 80-113, supra, at pp. 22-23, for a similar disposition of this issue.

⁴⁷See, Hearing Exhibit No. 25 (R.G.-4).

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The Commission has previously rejected the precise ratemaking treatment proposed by the Consumer Advocate for the operating reserves.⁴⁸ As we stated in Order No. 80-375, supra:

The Commission considers the rate base treatment of the relatively minimal amount to constitute one regulatory device to address the potential problem of attrition of earnings as a substitute for the utilization of other regulatory devices such as a direct attrition allowance or the use of a projected or forecasted test period.

We are not convinced by the evidence in the record before us that a departure from our previously adopted treatment of this issue is warranted. Consequently, the Commission is of the opinion, and so finds, that the proposed reduction to the Company's South Carolina retail electric rate base should not be allowed.

In addition, the Consumer Advocate's witness Galligan recommended a reduction to the Company's South Carolina retail electric rate base in an amount of \$2,005,000 "to reflect a gain resulting from the sale of a portion of the Company's Catawba II nuclear and support facilities."⁴⁹ (Tr., Vol. 25, Galligan, p. 106) The proposed treatment to the Company's rate base was related to the companion adjustment to the Company's test year income for return in the amount of \$1,003,000. (Tr., Vol. 25, Galligan, pp. 134-135)

As we recognized in our Order No. 78-525, dated September 19, 1978, the sale of the portion of the Catawba nuclear unit and associated support facilities to the North Carolina Municipal Power Agency No. 1 would produce patent benefits for the Company

⁴⁸ See, Order No. 80-375 and Order No. 79-730, issued in Docket Nos. 79-196-E and 79-197-G, supra, at pp. 38-39 and pp. 25-26, respectively.

⁴⁹ See, Order No. 78-525, issued on September 19, 1978, in Docket No. 78-273-E, I RE: Application of Duke Power Company.

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and its ratepayers. The Commission acknowledged that the proposed transaction would "operate to relieve the Company of having to raise that portion of the financing of its construction program through the sale of securities and will thereby help to insure that the Company's construction program as presently planned will continue." In addition, the Commission recognized that the proposed sale would reduce the Company's cost of service to its retail customers through the implementation of a negotiated sale of a portion of the capacity of the Catawba unit at a reduced rate.⁵⁰

The Company has recorded the sale of the Catawba facilities on its books and records in accordance with the Uniform System of Accounts which has been heretofore adopted and approved by this Commission. The gain attributable to the sale was properly credited to Account 421.1, "Other Income and Deductions," which is a nonoperating account. (Tr., Vol. 32, Stimart, p. 71) The accounting treatment of the gain as "below-the-line" income is consistent with the Uniform System of Accounts which would preclude a charge against operating income had the sale of facilities resulted in a loss, thereby insulating the interests of the Company's ratepayers against the possibility of loss.

In essence, the Consumer Advocate's proposed adjustment seeks to treat the capital gains from the completed transaction as a reduction of future rates and charges. The Commission does not consider such retroactive treatment of the gain to be appropriate

⁵⁰Id., at p. 6.

for ratemaking purposes. Furthermore, the proposed treatment ignores the positive beneficial effects for the Company's ratepayers embodied in the transaction. (Tr., Vol. 5, Lee, pp. 66-67)

The Commission considers herein, as we found in Order No. 78-525, that the sale of the Catawba facilities will operate to the benefit of the Company's shareholders and ratepayers alike, and is in the interest of the general public. Finally, the ratemaking treatment proposed by the Consumer Advocate pointedly deviates from the established treatment for the sale of such facilities as prescribed by the Uniform System of Accounts. While the Commission recognizes that the adoption and implementation of regulatory accounting procedures and guidelines do not dictate regulatory policy, significant departures from accepted standards should be undertaken only with substantial justification. We find such justification lacking in this matter, especially where, as here, a consistent application of the treatment proposed by the Consumer Advocate may well operate to the detriment of those very interests purportedly sought to be secured.

J. Original Cost Rate Base

The Company's South Carolina retail rate base for electric operations herein adjusted and determined by the Commission to be appropriate for the purposes of this proceeding, is set forth as follows:

TABLE C

ORIGINAL COST RATE BASE

June 30, 1979

Gross Plant in Service	\$1,078,562,000
Reserve for Depreciation and Amortization	<u>(358,220,000)</u>
Net Plant	\$ 720,342,000
Construction Work in Progress	569,916,000
Materials and Supplies	51,246,000
Working Capital Allowance	14,314,000
Property Held for Future Use	145,000
Accumulated Deferred Income Tax (Lib. Deprec.)	<u>(89,117,000)</u>
Customer Deposits	<u>(1,511,000)</u>
TOTAL RATE BASE	<u>\$1,265,335,000</u>

VI.

CAPITAL STRUCTURE

Considerable references to the Company's capital structure and to the appropriate capital structure for ratemaking purposes were made in the testimony and exhibits of witnesses for the Company, for the Commission Staff and for the Consumer Advocate. The Company proposed the adjustment to the Company's actual capitalization as of June 30, 1979, to reflect the capitalization ratios which are incorporated in the Company's "on-going financial objectives." (Tr., Vol. 8, Stimart, p. 88)⁵¹ The Company likewise proposed that the common equity portion of the capital structure include the Company's investment in subsidiaries. The composite effect of the Company's adjustments appears in the following table:

TABLE D
CAPITALIZATION - PROPOSED BY COMPANY

	June 30, 1979		<u>Pro Forma</u>
	<u>Actual</u> AMOUNT (Thousands)	<u>RATIO</u>	
Long Term Debt	\$2,124,029	47.11%	48.00%
Preferred Stock	681,787	15.12%	14.00%
Common Equity	<u>1,702,598</u>	<u>37.77%</u>	<u>38.00%</u>
TOTAL	<u>\$4,508,414</u>	<u>100.00%</u>	<u>100.00%</u>

(Source: Hearing Exhibit No. 4, p. 1)

The Commission Staff proposed the adoption of the Company's actual capital structure as of April 30, 1980, to include current maturities with the outstanding long

⁵¹See, Tr., Vol. 8, Grigg, pp. 25-27.

term debt and to exclude investments in non-utility related subsidiaries from the common equity portion of the capitalization. As proposed by the Commission Staff,⁵² the adjusted capital structure appears in the following table:

TABLE E
CAPITALIZATION - PROPOSED BY STAFF
April 30, 1980

	<u>AMOUNT</u> <u>(Thousands)</u>	<u>RATIO</u>
Total Debt	\$2,500,840	50.11%
Preferred and Preference Stock	724,513	14.52%
Common Equity	<u>1,765,339</u>	<u>35.37%</u>
TOTAL	<u>\$4,990,692</u>	<u>100.00%</u>

(Source: Hearing Exhibit No. 9, Accounting Department, p. 22)

Based upon the record before us, the Commission finds that an "objective" or anticipated capital structure should not be used for ratemaking purposes in this proceeding. The Commission is unconvinced that investors reasonably expect the objectives described by the Company witnesses to be achieved and maintained within the period in which the rates and charges approved herein will remain in effect. As in the Company's last ratemaking proceeding, the Commission continues to consider that an actual capital structure remains a more reliable standard for the determination of a fair overall rate of return.⁵³

⁵²The Consumer Advocate's witness Legler adopted the capitalization proposed by the Commission Staff. (Tr., Vol. 24, Legler, p. 49).

⁵³See, Order No. 79-230, supra, at p. 28.

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The Commission furthermore finds it reasonable to adopt the Staff's proposal to employ a more recent actual capital structure than the capitalization existing at the end of the test period. Between July 1, 1979, and April 30, 1980, the Company engaged in the issuance and sale of bonds, short term debt, preferred stock and common equity.⁵⁴ The Commission considers that the use of the Company's capitalization as of April 30, 1980, which incorporates the effect of such transactions, will be more reflective of the Company's capital structure during the period of time in which the rates approved herein will be in effect. By utilizing an actual capitalization adjusted to April 30, 1980, and thereby making allowances for the more recent financial transactions, the Commission has given consideration to matters beyond the historic test period. The Commission finds such action to be reasonable in allowing the Company the opportunity to earn a fair rate of return and likewise provide the opportunity to maintain that fair rate of return despite the affects of attrition. The Commission has employed similar adjustments in previous decisions to compensate for inflationary pressures.⁵⁵

The Company's computation of its capitalization excluded short term debt and current maturities. This Commission has traditionally included short term financial obligations in a utility's capital structure for ratemaking purposes. Such

⁵⁴See, Order No. 79-328, issued in Docket No. 79-232-E, on July 2, 1979; and Order No. 79-517, issued in Docket No. 79-359-E, on September 21, 1979; and Order No. 79-557, issued in Docket No. 79-368-E, on October 4, 1979; and Order No. 80-71, issued in Docket No. 80-16-E, on February 5, 1980.

⁵⁵Tr., Vol. 18, Hammond, p. 38. See, also, Order No. 79-230, supra, at p. 28, and the decisions cited at fn. 36.

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instruments have been incorporated in the utility's total debt portion of the capitalization or have been identified and illustrated as a separate component of the capital structure.⁵⁶ While the Commission acknowledges that the proceeds of the financing transactions in which the Company engages may cause significant changes in the amount and costs of outstanding obligations, the Commission considers the incorporation of current maturities in the total debt portion of the Company's capitalization to reflect most accurately the Company's financial condition. Since the current maturities in effect become short term obligations, the inclusion of the outstanding amount of such obligations will be more representative of the capital structure during the time in which the rates approved in this proceeding will be effective.

Table E, supra, reflects the capitalization of the Company and the resultant ratios on April 30, 1980, as adjusted to include current maturities of \$44,111,000 with the long term debt and to exclude the Company's investment in non-utility-related subsidiaries from the common equity portion. The adjusted capitalization and associated ratios in Table E have been utilized by the Commission in determining a fair rate of return for the Company in this proceeding.

VII.

COST OF CAPITAL

A. Total Debt

This Company, as well as all other regulated utilities, is directly affected by changes in interest rates. As described

⁵⁶See, Order No. 79-230, supra, at p. 29.

by the Company's Senior Vice President - Legal and Finance, William H. Grigg, the Company has experienced a constant increase in the embedded cost of long term debt in recent years, which is a function of the issuance and sale of new debt securities at higher prices than the overall average cost of existing debt. (Tr., Vol. 8, Grigg, pp. 26-27) The following table illustrates the recent figures for the embedded cost of the Company's senior capital:

<u>TABLE F</u>	
Embedded Cost of Long Term Debt	
<u>YEAR</u>	<u>YEAR-END COST</u>
1967	4.09%
1968	4.42%
1969	5.12%
1970	5.83%
1971	6.11%
1972	6.36%
1973	6.67%
1974	7.30%
1975	7.66%
1976	7.74%
1977	7.88%
1978	8.07%
1979 (June 30)	8.05%
1980 (April 30)	9.17%

(Source: Hearing Exhibit No. 1, Data Request I, item 4 and Hearing Exhibit No. 9, Accounting Department, p. 22)

For the purposes of this proceeding, the Commission considers that the embedded cost of long term debt of 9.17% as of April 30, 1980, should be used in the determination of the cost of total debt and overall rate of return herein.

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The Commission Staff proposed to incorporate the amount of current maturities in the debt portion of the Company's capital structure, which we have adopted herein.⁵⁷ The Staff likewise proposed to adopt the embedded cost of long term debt as a surrogate for the cost of current maturities. The Commission is of the opinion, and so finds, that the Staff's proposal is fair and reasonable and should be adopted in our determination herein of the overall rate of return.⁵⁸

The record of this proceeding illustrates the interrelationship among investor requirements, the needs of consumers for adequate utility service and the ability to raise significant amounts of capital at the lowest possible cost. This Commission has frequently observed the influence of a utility's rating of its first mortgage bonds on its ability to raise senior capital at competitive interest rates. Generally, lower bond ratings may result in measurably higher costs of capital to a utility, which ultimately increase costs to consumers for many years in the future.

In addition, higher interest rates on long term debt securities operate to reduce the earnings coverage of fixed charges. The fixed charge coverage is perceived by the investor as only one index of financial stability. The Company's debt coverage ratio of earnings to fixed charges, computed by use of

⁵⁷ See, pp. 37-38, supra.

⁵⁸ See, also, Tr., Vol. 24, Legler, pp. 13-15.

the SEC methodology, for the period 1969 through 1978, is demonstrated in the following table:

TABLE G

DEBT COVERAGE RATIO
OF EARNINGS TO FIXED CHARGES

<u>YEAR</u>	<u>RATIO</u>
1967	5.30X
1968	4.50X
1969	3.15X
1970	2.03X
1971	2.13X
1972	2.05X
1973	2.17X
1974	2.06X
1975	2.19X
1976	2.81X
1977	2.71X
1978	2.91X

(Source: Hearing Exhibit No. 1, Item 14)

B. Preferred and Preference Stock

The Company's embedded cost of preferred stock, which includes the cost of preference stock, increased from 7.07% in 1971 to 8.20% in April 1980. The following table illustrates the embedded cost of the Company's preferred and preference stock from 1971 to April 30, 1980:

TABLE H

EMBEDDED COST OF
PREFERRED STOCK

<u>YEAR</u>	<u>YEAR-END COST</u>
1971	7.07%
1972	7.20%
1973	7.22%
1974	7.22%
1975	7.69%
1976	7.69%
1977	7.79%
1978	7.91%
1979 (June 30)	7.99%
1980 (April 30)	8.20%

(Source: Hearing Exhibit No. 1, Data Request I, Item 7; and Hearing Exhibit No. 9, Accounting Department, p. 23)

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For the purposes of this proceeding, the Commission has used 8.20% as the cost for the Company's preferred and preference stock, as reflected in Table H, as of April 30, 1980.

D. Common Equity

One of the principal issues in any ratemaking determination involves the proper earnings to be allowed on the common equity investment of the regulated utility. In this proceeding, the Commission was offered the expert testimony of several witnesses relating to the fair and reasonable rate of return on common equity for the Company. These financial experts presented detailed explanations of a number of methodological approaches to the determination of the cost of equity capital for the Company.

This Commission has frequently stated that it adheres to no particular theory or methodology for the determination of a fair rate of return on common equity.⁵⁹ Rather, the Commission has perceived its function as that of engaging in a careful and reasoned analysis of the abstract theories for application in a practical context. The record of the instant proceeding illustrates the use of several fundamental methods for the determination of the cost of equity capital by the expert witnesses for the Company and for the Commission Staff. Those methods include the discounted cash flow (hereinafter "DCF") method, the capital asset pricing model (hereinafter "CAPM"), the risk premium approach, and the comparable earnings method.

While utilizing a combination of methodologies and deriving somewhat dissimilar results, each cost of capital witness

⁵⁹ See, e.g., Order No. 79-730, supra, at pp. 32-33; Order No. 79-230, supra, at p. 36, and the decisions cited therein.

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acknowledged that informed judgment was significant in the analysis of the cost of equity and that a purely mechanistic application of any method was meaningless. In recognition of the role of judgment and the interdependence of complementary methodologies for cost of capital estimations, the Company's witness Dr. Stephen F. Sherwin explained that "[t]he measurement of the cost of equity capital is essentially a process of sifting multiple facets of factual evidence, which serve as constraints on the exercise of judgment." (Tr., Vol. 7, Sherwin, p. 10) This reliance on judgment was repeated by each cost of capital witness in the identification and application of the components of the approaches and in the derivation of the financial results of such methods. (Tr., Vol. 15, Rhyne, p. 99; Vol. 24, Legler, p. 10)

Dr. Sherwin undertook to determine the fair return, as distinguished from the cost of attracting equity capital, by reliance on three conceptual standards which establish economic guidelines for the "opportunity cost principle." (Tr., Vol. 7, Sherwin, p. 10). The application of the three standards incorporated certain assumptions regarding prospective general economic conditions relative to the present Administration's projection of a mild recession in 1980 with a "moderation" of inflationary pressures to an annual rate of 10.4 percent by the end of 1980, the interest rates on A-rated long-term bonds through 1980, and the prospective level of corporate profits, compared to 1979. (Tr., Vol. 7, Sherwin, p. 11). In his extensive analysis to determine the fair return, Dr. Sherwin examined general economic trends affecting return requirements, reviewed the risk-premium relationship between returns on equity capital and debt capital, and performed an analysis of business and financial risks. In measuring the return requirement for the Company, Dr. Sherwin employed a comparable earnings approach in conjunction with a financial integrity test.

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The comparable earnings approach incorporated the identification of several groups of industrials with risks purportedly similar to those of the Company and a comparison of their earnings, principally in the period 1977-1978. The financial integrity test involved an analysis of market to book ratios and a concomitant risk appraisal. The combination of these standards led the witness to a conclusion that the fair return for the Company was no less than 15.0%. (Tr., Vol. 7, Sherwin, p. 14) The application of a DCF approach produced a "bare bones" current cost of attracting capital of at least 14.5%, for which an adjustment for financing costs was made to produce a total current cost of capital attraction of at least 14.8%. (Tr., Vol. 7, Sherwin, p. 16)

The Company's witness Grigg, whose corporate responsibilities include planning and executing the Company's financing programs, overseeing the issuances and sales of securities, and the maintenance of the Company's investor relations program, offered testimony relative to the Company's objective financial standards, the effects of inflation on the Company's earnings, and the effect of a combination of risks upon the return expectations of investors. While Mr. Grigg did not undertake the compilation and analysis of an independent cost of capital study for this proceeding, he contended that the return on common equity of 12.77% requested by the Company's Application herein was "clearly inadequate," and indicated that the Company would initiate shortly a subsequent ratemaking proceeding in which it would be requested that "rates be set to allow the Company the opportunity to achieve a realistic return on equity." (Tr., Vol. 8, Grigg, p. 36)

The Staff's expert witness, Dr. R. Glenn Rhyne, Director of the Commission's Department of Research, also presented testimony and exhibits relative to the cost of equity capital.

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Dr. Rhyne employed two independent methods in the derivation of the conclusions expressed in his testimony in regard to his estimate of the rate of return which the Company should be allowed the opportunity to earn. The application of the CAPM produced a range of return estimates from a low figure of 12.0% to a high figure of 13.1%. The DCF methodology resulted in a range of return estimates from 13.35% to 13.91%. A combination of the "best estimates" of the two methodologies produced a range of return estimates from 12.51% to 13.63%. (Tr., Vol. 15, Rhyne, p. 88) Based upon the CAPM and the DCF methods, Dr. Rhyne's analysis led to the conclusion that a return on equity in the range of 12.80% to 13.92%, based upon the independent cost of equity estimates, was fair and reasonable. (Tr., Vol. 15, Rhyne, p. 89)

The Consumer Advocate's witness, Dr. John B. Legler, likewise presented testimony and exhibits which incorporated several methodological approaches to the determination of the cost of equity capital and the Company's fair rate of return, including the bond yield plus risk premium approach, the DCF method and a comparable earnings analysis. Dr. Legler's analytical calculations produced a range for the estimated cost of equity capital between 12.40% and 14.30%. (Tr., Vol. 24, Legler, p. 48)

The testimony and exhibits of the financial witnesses for the Company, the Commission Staff and the Consumer Advocate demonstrated an approach to their respective investigations within the parameters of the language of the United States Supreme Court in its decision in Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944), at 603:

[T]he return to the equity owner should be commensurate with the return on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, as to maintain its credit and to attract capital.

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While the independent studies of each witness, either implicitly or explicitly, commenced with those standards, the respective methods employed produced quite different results, thereby presenting the Commission with a range of between 12.0%, the lowest estimate produced in Dr. Rhyne's studies, and 15.00%, the highest estimate made by the studies of Dr. Sherwin. In the final analysis, the Commission must appraise the opinions of the expert financial witnesses as to the expectations of investors or the opportunity costs of equity capital in conjunction with the tangible facts of the entire record of the proceeding, including the observable financial condition of the Company. Southern Bell, supra, 244 S.E.2d, at p. 282.

Furthermore, the Commission cannot determine the fair and reasonable return on common equity for the Company in isolation. Rather, the Commission must carefully consider a variety of relevant factors, including identifiable trends in the market relating to the costs of labor, materials and capital; comparisons of past earnings with present earnings and prospective earnings; the prices for which the Company's service must be rendered; the returns of other enterprises and the reasonable opportunities for investment therein; the financial policy and capital structure of the Company and its ability to attract capital; the demonstrable competency and efficiency of the Company's management; the inherent protection against destructive competition afforded the Company through the operation of the regulatory process; and the public demand for growth and expansion which is required to evaluate the construction program for the foreseeable future. The Commission must strike the balance among these complex and interrelated factors in the context of the record herein.

The Commission recognizes the legal principle and the practical necessity that the Company be allowed the opportunity

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to earn a fair rate of return to enable it to continue to meet its service obligations and to maintain its financial strength to provide for the attraction of capital to finance its construction program. The present and perceivably perspective financial condition of the Company and the investor appraisal of that condition demonstrate to the Commission that the Company's cost of equity capital for its retail electric operations should be evaluated as somewhat lower than that postulated by the Company's witnesses herein, and at a level slightly below that found fair and reasonable in the most recent ratemaking proceeding involving the Company's retail electric operations.⁶⁰

The record of this proceeding demonstrates that the Company's general financial condition has generally improved since its most recent general ratemaking proceeding in Docket No. 78-189-E. The Company's witness Grigg identified the "external factors" of inflation, interest rates and certain burdensome government regulation which created some concern about the Company's financial posture, but he generally expressed a basic optimism with regard to the Company's overall financial condition. (Tr., Vol. 8, Grigg, p. 49) The Company has maintained its "A" bond rating and has made some recent progress in the strengthening of its capital structure and in the realization of its long-range financial objectives. (Tr., Vol. 8, Grigg, p. 52-55) The record before us demonstrates a moderate improvement in several criteria of the Company's financial condition, including earnings and dividends per share, book value per share and earned rate of return.⁶¹

⁶⁰See, Order No. 79-230, supra, at p. 45, where it was determined that a fair and proper rate of return for the Company fell within the range of 12.75% to 13.0%, and that just and reasonable rates for its retail electric operations would allow the Company the opportunity to earn a rate of return of 12.75%.

⁶¹See, Hearing Exhibit No. 1, Data Request I, item 11; and Tr., Vol. 8, Grigg, p. 56; and Tr., Vol. 2, Lee, p. 30.

While the Commission must recognize the manifestations of inflation and their effects upon the Company, (Tr., Vol. 2, Lee, pp. 37-40) the Commission considers the present financial condition of the Company to have slightly reduced the level of risk of the Company's common equity to potential investors at that approximate level of the period of a year ago. Our evaluation of the relative risk for such investors incorporates the recognized contributions of the corporate management of the Company and the acknowledged operational efficiencies achieved by the Company in the recent period. (Tr., Vol. 2, Lee, pp. 41-45, 60-63) Consequently, the Commission is of the opinion that the Company's cost of equity capital will reflect that phenomenon, which should be incorporated in the range of the fair rate of return which the Company should be allowed the opportunity to earn.

In its determination of a fair and reasonable rate of return, the Commission maintains the ultimate responsibility of setting the rates to be charged for the utility services provided by the Company. The exercise of that responsibility involves the balancing of the interests of the consumer and the investor. During this proceeding, the Commission heard the testimony of many consumers of the Company's services, articulating a concern about the increasing costs of all forms of energy, including electricity, which create a heavy burden for many residential customers with limited or fixed incomes.⁶² The Commission must gravely balance the interests of the consumer in regard to the price of utility service with the interests of the same consumer in regard to the reliability and adequacy of the supply of energy. The Commission has maintained these interests paramount throughout this proceeding. The Commission's determinations of the Company's revenue requirements and of the proper allocation of those revenues within the

⁶²See, Tr., Vol. 31, pp. 4-60; Vol. 34, passim; Vol. 35, passim.

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approved rate structure embodied in this Order reflect fairly and equitably the interests of those consumers so graphically expressed in the record before us.

Upon a thorough review of the conclusions reached by each financial and economic witness in this proceeding, as well as upon our consideration of the full evidence in the record before us, the Commission has determined that the additional revenues of \$25,819,000 produced by the proposed rate schedules for the Company's South Carolina retail electric operations, which would generate a rate of return on common equity of 12.78%, based on adjusted test year figures, are excessive and unreasonable. That return on common equity and the associated revenues cannot be supported by the evidence in this proceeding.

It, therefore, becomes the Commission's responsibility to set a fair and reasonable rate of return on common equity from which can be derived the lawful rates for the Company for its retail electric operations. This responsibility must be discharged in accordance with statutory and judicial standards, and based upon the numerous factors identified herein, and applied in accord with the informed judgment of the Commission.

In light of all relevant issues in the record of this proceeding, the Commission is of the opinion, and so finds, that a fair and proper return on common equity falls within the range of 12.50% to 13.00%, and that a rate of return of 12.50% on common equity produced by additional annual revenues of \$23,369,000 for the Company's South Carolina retail electric operations, as approved infra,⁶³ is fair and reasonable.

The rate of return on common equity herein found fair and

⁶³See, Section X, infra.

reasonable falls within the ranges produced by the studies of Dr. Rhyne and Dr. Legler. The Commission considers the results reached by those studies generally to have incorporated effectively the expectations of the potential equity investor through the estimate of relevant risk of investment in the Company's equity relative to the market as a whole. The Commission considers that the Company's electric operations currently incorporate slightly lower risks than in our previous decision. As a consequence, we consider the proper cost of equity capital should be slightly lower for the South Carolina retail electric operations than the cost of equity capital adopted in Order No. 79-230. The 12.50% - 13.00% range reflects the Company's financial condition since the 1977 - 1978 period and the commensurately stabilized risk for the equity investor. The Commission considers that range to represent the reasonable expectation for the equity owner, and, therefore, consistent with the standards of the Hope decision. A return within the range found fair and reasonable is sufficient to protect the financial integrity of the Company, to preserve the property of the investor, and to permit the Company to continue to provide reliable service to present and future customers at reasonable rates.

In arriving at a rate of return herein, the Commission is concerned only with the return to be earned on the common equity allocated to that portion of the Company's operations subject to the Commission's jurisdiction in this proceeding. Sales of electricity on a wholesale basis to other electrical suppliers are subject to the jurisdiction of the Federal Energy Regulatory Commission. The Commission has made its findings based on the jurisdictional South Carolina retail electric operations of the Company, and has not considered any other operations or property.

VIII.

RATE OF RETURN

An important function of ratemaking is the determination of the overall rate of return which the utility should be granted. This Commission has utilized the following definition of "rate of return" in previous decisions, and continues to do so in this proceeding:

For regulatory purposes, the rate of return is the amount of money earned by a regulated company, over and above operating costs, expressed as a percentage of the rate base. In other words, the rate of return includes interest on long-term debt, dividends on preferred stock, and earnings on common stock and surplus. As Garfield and Lovejoy have put it "the return is that money earned from operations which is available for distribution among the various classes of contributors of money capital. In the case of common stockholders, part of their share may be retained as surplus."

Phillips, The Economics of Regulation, pp. 260-261 (1969).

The amount of revenue permitted to be earned by the Company through its rate structure depends upon the rate base and the allowed rate of return on the rate base. As discussed in the preceding section of this Order, the primary issue between the regulated utility and regulatory body most frequently involves the determination of a reasonable return on common equity, since the other components of the overall rate of return, i.e., dividends on preferred stock and cost of debt, are fixed. Although the determination of the return on common equity provides the necessary component from which the rate of return on rate base can be derived, the overall rate of return, as set by this Commission, must be fair and reasonable.

The United States Supreme Court's landmark decision in Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679 (1923), delineated general guidelines for determining the fair rate of return in utility regulation. In the Bluefield decision, the Court stated:

What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risk and uncertainties; but it has no constitutional rights to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business generally.

262 U.S. at 692-693.

During the subsequent years, the Supreme Court refined its appraisal of regulatory precepts. In its frequently cited Hope decision, supra, the Court restated its view:

We held in Federal Power Commission v. Natural Pipeline Co. . . . that the Commission was not bound to the use of any single formula or combination of formulae in determining its rates. Its ratemaking function, moreover involves the making of 'pragmatic adjustments' (cite omitted) Under the statutory standard of 'just and reasonable' it is the result reached, not the method employed which is controlling (Citations omitted). . . .

The ratemaking process under the Act, i.e., the fixing of 'just and reasonable' rates involves a balancing of the investor and the consumer interests. Thus we stated in the Natural Gas Pipeline Co. case, that regulation does not insure that the business shall produce net revenues. (Citation omitted).

But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividend on the stock. (Citation omitted). By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

320 U.S. at 602-603.

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The vitality of these decisions has not been eroded, as indicated by the language of the more recent decision of the Supreme Court in In Re Permian Basin Area Rate Cases, 390 U.S. 747 (1968). This Commission has consistently operated within the guidelines set forth in the Hope decision.⁶⁴

The record in this proceeding demonstrates that the wholesale operations of the Company generate a lower rate of return than the overall rate of return for the various classes of jurisdictional retail customers.⁶⁵ The Commission herein repeats its interest in the Company's efforts to address that situation, including the institution of ratemaking proceedings before the FERC.⁶⁶ As the Commission has demonstrated on several occasions in recent ratemaking proceedings involving its principal jurisdictional electrical utilities, rates cannot, and will not, be approved which have the effect of subsidizing non-jurisdictional operations through earnings derived from utility operations within the Commission's jurisdiction.⁶⁷ It is the overall rate of return of the entire Company that a potential investor analyzes. To the extent that the Company fails to earn a proper return on its non-jurisdictional service, there is a direct, adverse impact on the retail customer. The Commission will expect the Company to continue to take all reasonable steps to reduce the effects of this situation.

The range of the rate of return which the Commission has herein found to be fair and reasonable should enable the Company to maintain and enhance its position in the capital markets. Patently, however, the Company must insure that its operating and

⁶⁴See, also, Southern Bell, supra, 244 S.E.2d at 280-3.

⁶⁵See, Hearing Exhibit No. 9 (Electric Department), p. 21.

⁶⁶See, Order No. 79-230, supra, at p. 49.

⁶⁷Id., at pp. 49-50.

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maintenance expenses remain at the lowest level consistent with reliable service and exercise appropriate managerial efficiency in all phases of its operations. The Commission has consistently manifested its abiding concern for the establishment and continuation of efficiency programs on the part of its jurisdictional entities. By our Directive of August 27, 1974, the Commission urged the derivation of cost control studies, the adoption of cost reduction programs, and the elimination and reduction of costs "in all possible ways". The continued awareness of the potential efficacy of such programs and their implementation are consistent with the conscious national and State policies to limit the deleterious effects of inflation.

The Company's witness Lee described the considerable effort made by the Company to reduce its costs of construction and its operation and maintenance expenses. (Tr., Vol. 2, Lee, pp. 41-45, 59-62) The Company's construction policies and programs have resulted in favorable comparisons with the construction costs of other electrical utilities. In addition, the standards for the measurement of economical generating operations manifest that the Company has generally demonstrated an ability to produce electrical energy in a measurably efficient manner. The record of this proceeding indicates that the Company's construction programs and its general operations have resulted in tangible benefit to its customers in the form of lower costs for electric service.⁶⁸

The record of this proceeding indicates that the Company has generally undertaken its cost reduction efforts in the spirit

⁶⁸According to the Company's witness Lee, the average electrical utility would have required additional annual revenue of \$269,000,000 to provide the electrical energy generated and distributed by the Company in 1978. (Tr., Vol. 2, Lee, p. 45)

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of the Commission's Directive and consistent with our previous Orders. Nonetheless, the Commission cannot ignore the effect of the Company's increasing operating expenses. (Tr., Vol. 2, Lee, pp. 37-40) The Company and the parties before us may take notice of the fact that the Commission is not inclined to be completely satisfied with the cost reduction and efficiency programs of any jurisdictional entity. The Commission will continue to expect the Company to design and implement such programs in the future as an index of good management practice in the interests of its customers and of the Company itself. With the full array of its resources at its disposal, the Company should be able to assure us that such programs produce identifiable and measurable results consistent with the provision of economical and adequate service to the Company's ratepayers. The Commission has found a range for the fair and reasonable return on common equity which the Company should be allowed the opportunity to earn, and has herein set rates to produce revenues to reach the lower bound of that range. The Commission considers that effective programs of cost reductions can operate to enable the Company to improve its financial posture and earn a return within the range above that lower limit. The Commission has, therefore, provided to the Company the incentive to continue its efficient practices in engineering and construction similar to that sought by Mr. Lee.

Clearly, neither the Commission nor any party to the instant proceeding can responsibly ignore the effects of inflation upon a utility's earnings and rate of return. In addition to the review of the Company's costs of service in the context of this proceeding and our express expectations of efficient and effective management, the Commission considers the accepted regulatory devices of the use of a year-end rate base, including year-end construction work in progress and our previously adopted associated computation of AFUDC, the use of the more recent capital structure, adjustments for customer growth and annualized depreciation, together with adjustments for identifiable and measurable changes in revenues and expenses to combine to represent a reasonable

regulatory approach to the earnings erosion attributable to inflation.

The Commission has found that the capitalization ratios as of April 30, 1980, as adjusted, are appropriate and should be used in the instant proceeding. The Commission has likewise found that the respective embedded cost rates for total debt of 9.17% and for preferred and preference stock of 8.20% should be utilized in the determination of a fair overall rate of return. For the purposes of this proceeding, the Commission has herein found the proper cost rate for the Company's common equity capital to be 12.50%.

Using these findings, the overall rate of return on rate base for the Company's South Carolina retail electric operations may be derived as computed in the following table:

TABLE I			
OVERALL RATE OF RETURN			
	<u>Ratio</u>	<u>Cost</u>	<u>Weighted Cost</u>
Total Debt	50.11%	9.17%	4.60%
Preferred Stock	14.52%	8.20%	1.19%
Common Equity	<u>35.37%</u>	12.50%	<u>4.42%</u>
TOTAL	<u>100.00%</u>		<u>10.21%</u>

IX.

ACCOUNTING AND PRO FORMA ADJUSTMENTS

Certain adjustments affecting revenues and expenses were included in the exhibits and testimony offered by witnesses for the Company, the Staff and the Consumer Advocate. This Order will discuss in detail only those accounting and pro forma adjustments which represented differences in regulatory treatment of the respective items.

A. Adjustment to Nuclear Depreciation Rate

The Company and the Commission Staff proposed an adjustment to the Company's test year operating expense to annualize the depreciation expense on the Company's plant in service as of the end of the test year. The effect of the proposed adjustment was an increase to the test year expense of \$920,000, as allocated to the Company's South Carolina retail electric operations.⁶⁹

The proposed adjustment to operating expense incorporated a proposed change in the depreciation rate applicable to the Company's nuclear facilities from 3.57% to 4.0%.⁷⁰ According to the Company's witness Stimart, the depreciation rate for the nuclear facilities was adjusted "to more closely reflect the state of the art of recognizing decommissioning costs as a component of cost in the depreciation of nuclear power plants." (Tr., Vol. 9, Stimart, pp. 18-19)

The Commission considers that the Company's revenue requirements should reflect decommissioning expense since such expense is a legitimate cost of service which should be recovered from the customers using the nuclear plant. The Commission further finds that the Company's proposed adjustment to the depreciation is reasonable for the purposes of this ratemaking proceeding.⁷¹ The Commission recognizes that the Company has proposed the four percent (4%) depreciation rate "on an interim basis" until more information relative to the costs of decommissioning become available. (Tr., Vol. 9, Stimart, p. 19) The Commission considers that the adoption of the

⁶⁹ See, Hearing Exhibit No. 4, p. 3; and Hearing Exhibit No. 9 (Accounting Department), p. 19.

⁷⁰ The effect of the annualization of depreciation expense attributable to the change in the depreciation rate is \$571,000, as allocated to the Company's South Carolina retail electric operations. Hearing Exhibit No. 9 (Accounting Department), p. 18.

⁷¹ The four percent (4%) depreciation rate has been adopted for ratemaking purposes by the FERC for Carolina Power & Light Company and has been adopted by the North Carolina Utilities Commission for the Company. (Tr., Vol. 9, Stimart, p. 19)

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depreciation rate herein represents a fair and reasonable approach to be applicable herein. The Commission will expect the Company to continue its investigation and study of the costs of decommissioning its nuclear facilities as further reliable information becomes available.

In accordance with our traditional ratemaking treatment, the Commission has included the amount of annualized depreciation expense on plant in service as of June 30, 1979, in the reserve for depreciation and amortization which has operated to reduce the Company's South Carolina retail electric rate base for ratemaking purposes herein.⁷²

B. Adjustment for Refund of Surplus in
Accumulated Deferred Income Tax Reserve

The Consumer Advocate's witness Galligan proposed an adjustment to increase the Company's test year operating income by \$1,087,000 "to return to the Company's ratepayers "an excess" in the accumulated deferred income tax reserve attributable to the change in the federal corporate income tax rate from forty-eight percent (48%) to forty-six percent (46%)." (Tr., Vol. 25, Galligan, pp. 135-137) The adjustment represents a three-year amortization of the surplus amount currently included in the reserve. In effect, the Consumer Advocate's witness maintains that the Commission should recompute the Company's deferred taxes at a 46% rate, and then reduce the cost of service for the next three years by the difference between the taxes actually deferred at the 48% rate and the recomputed taxes.

⁷²See, pp. 23-24, supra.

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The Commission has previously rejected the identical approach advanced herein by the Consumer Advocate.⁷³ We are not convinced that the proposed adjustment here conforms to generally accepted accounting principles or to reasonable regulatory accounting.

Deferred taxes are created by timing differences of transactions affecting taxable income in one period which enter into the determination of accounting income in a subsequent period. Essentially, deferred tax accounting provides for the determination of taxes on the basis of the applicable rates in effect at the time of the origin of the timing difference, and are not adjusted for subsequent changes in tax rates. The tax effects of transactions which reduce taxes currently payable are treated as deferred credits; the tax effects of transactions which increase taxes currently payable are treated as deferred charges. The amortization of deferred taxes to income tax expense in future periods depends upon the nature of the transactions.

The Commission's previously approved and implemented rate base treatment of the reserve for accumulated deferred federal income taxes operates to return the surplus in the reserve account to the affected ratepayers over the life of the asset which gives rise to the deferral.⁷⁴ (Tr., Vol. 18, Hammond, pp. 15-17; Vol. 32, Stimart, pp. 75-76) The Commission considers, and so finds, that our previously adopted practice continues to be appropriate for ratemaking purposes and that the proposed adjustment of the Consumer Advocate should not be approved herein.

⁷³See, Order No. 80-113, supra, at pp. 55-56.

⁷⁴Id., p. 56.

In accordance with our established practice, the Commission finds reasonable the Commission Staff's proposed adjustment to reduce the Company's test year expense by \$53,000, as allocated to South Carolina retail operations, for the amortization of taxes associated with certain items to reflect a return at the 48% rate at which they were deferred. (Tr., Vol. 17, Hammond, pp. 30-31)

C. Computation of Allowance for Funds Used
During Construction

The Consumer Advocate's witness Galligan proposed to increase the Company's test year net income for return for its South Carolina retail electric operations by \$10,132,000 to reflect a proposed annualization of the test year AFUDC attributable to the end of period CWIP. According to the Consumer Advocate's witness Galligan, the derivation of the AFUDC employed by the Company results in a "duplicative return" (Tr., Vol. 25, Galligan, pp. 131-134)

The Consumer Advocate's witness, Ralph E. Miller, proposed an alternative approach to the treatment of AFUDC to prevent an alleged "double recovery of earnings on a substantial part of the CWIP" in the Company's rate base. (Tr., Vol. 27, Miller, pp. 87-106)⁷⁵ Mr. Miller proposed that the Commission restrict the accrual of AFUDC to an annual rate of 6.12% on the amount of CWIP included in the Company's rate base for ratemaking purposes in this proceeding,⁷⁶ with a continuation of the accrual at a rate of 7.9% on any CWIP in excess of that amount.

⁷⁵The Consumer Advocate's witness Miller endorsed the full AFUDC offset approach advanced by the witness Galligan as "the most desirable treatment." (Tr., Vol. 27, p. 88)

⁷⁶See, p. 26, supra, in which the Commission found the appropriate amount of CWIP for ratemaking purposes herein to be \$569,916,000.

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The Company's witness Stimart testified that the Company's computation and application of the adjustment to income for return for AFUDC was presented in accordance with the Commission's Directive of November 13, 1974, and with the Commission's consistent treatment of this issue. (Tr., Vol. 32, Stimart, pp. 76-77) The Commission Staff's computation of AFUDC was likewise calculated in accordance with the Directive and our subsequent decisions.⁷⁷

In a recent general ratemaking proceeding involving a telephone utility, a similar proposal was asserted for the annualization of the accrual of interest during construction (hereinafter "IDC") on end of period CWIP. In our determination that the proposed adjustment was inappropriate for ratemaking purposes, we stated:

This Commission has traditionally computed IDC applicable only to end of period CWIP, rather than utilizing the total "per books" IDC for a test period. This accepted treatment acknowledges that rates are set on an end of period rate base, as well as recognizes that some CWIP during the period under review becomes plant in service and it would be inconsistent to accrue IDC on such plant. Furthermore, as we have recognized in previous decisions, the difference between the IDC rate computed on end-of-period CWIP and the requested overall rate of return has been recognized to be a preferable substitute to a direct attrition allowance to compensate for earnings erosion. [Citation omitted] The Commission is not convinced upon a review of the evidence in this record that a departure from our established treatment of this issue is justified in this proceeding.

(Order No. 80-113, supra, at p. 54)

⁷⁷ See, Hearing Exhibit No. 9 (Accounting Department), p. 19.

The historically applied ratemaking treatment has permitted the application of the AFUDC applicable only to end of period CWIP as the offset to the return allowed on the entire amount of CWIP. The difference between the amount of AFUDC included in net income for return and the amount of AFUDC capitalized has been considered an allowance for the effects of earnings erosion or attrition.⁷⁸ (Tr., Vol. 18, Hammond, pp. 35-37; Vol. 7, Sherwin, p. 97; Vol. 8 Grigg, pp. 57-59; Vol. 9, Stimart, pp. 6-7)

In effect, our accepted methodology for the treatment of AFUDC permits a return on the entire CWIP in the rate base with a partial offset to net income for return. As a consequence, the affected income for return provides for an increase in actual dollars of income rather than for the entry of a mere non-cash item. (Tr., Vol. 8, Grigg, p. 57) Our adopted treatment consequently enhances the quality of a utility's earnings, and reduces the risk for the potential or actual investor. (Tr., Vol. 7, Sherwin, p. 98), which would reduce the cost of equity capital and fair return for that investor (Tr., Vol. 8, Grigg, p. 59) with the attendant lower revenue requirement for the utility.

The Commission's ratemaking treatment of AFUDC does not serve to provide a utility with a duplicative overall return as contended by the witnesses for the Consumer Advocate. When perceived in its entirety, the partial offset to the end of period CWIP serves to provide a regulatory framework in which the utility has the opportunity to earn the authorized return which the Commission is obliged by

⁷⁸In the instant proceeding, the adjustment at issue is produced by the application of the 7.9% rate at which AFUDC is capitalized and the 6.15% rate at which the CWIP is offset.

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law to provide. Federal Power Commission v. Hope Natural Gas Co., 320 U. S., supra, at 602-603 (1944); Bluefield Water Works & Improvement Co. v. Public Service Com'n, 262 U. S., supra, at 692 (1923); Missouri ex rel. Southwestern Bell v. Public Service Com'n, 262 U.S. 276, at 291, 43 S. Ct. 544, at 547, 67 L.Ed. 981, at 986 (1923); Southern Bell Tel. & Tel. v. Public Service Com'n, 244 S.E. 2d, supra, at 281 (1978). We have not seen that our regulatory practice at issue has allowed a utility to earn in excess of the overall return authorized.⁷⁹

In the final analysis, as we have recently recognized, the approved treatment of AFUDC serves to balance fairly the interests of present and prospective ratepayers and the interests of the regulated utility.⁸⁰ Nothing in the record herein causes the Commission to modify that conclusion. Consequently, we are of the opinion, and so find, that the appropriate figure for AFUDC to be used for ratemaking purposes herein is that computed and utilized by the Company and the Commission Staff herein.⁸¹

Furthermore, in accordance with our prior decision, the Commission herein directs the Company to use a return on common equity between the return authorized by this Commission and the return granted by the NCUC in the calculation of the equity portion of the AFUDC rate to be applied to the Company's plant under construction.⁸²

⁷⁹The receipt and review of the quarterly reports required to be filed with the Commission provide the opportunity to assess the actual effects of our ratemaking decisions. Should such reports demonstrate an earned return in excess of the authorized return, the appropriate ratemaking remedy can be undertaken.

⁸⁰See, Order No. 80-375, supra, at p. 63.

⁸¹See, Hearing Exhibit No. 4, p. 2; and Hearing Exhibit No. 9 (Accounting Department), p. 15.

⁸²See, Order No. 79-230, supra, at pp. 21-22.

D. Gain on Sale of Catawba Unit No. 2

The Consumer Advocate's witness Galligan proposed to increase the Company's test year income for return by \$1,003,000, as allocated to South Carolina retail electric operations, "to effectuate a return of the gain" of the sale of the portion of the Catawba Nuclear Station facilities. The rationale advanced for the proposed adjustment was identical to that described for the Consumer Advocate's proposed reduction of the Company's jurisdictional rate base. (Tr., Vol. 25, Galligan, pp. 134-135)

The Commission previously found the proposed rate base treatment for the gain of the sale of the Catawba facilities to be unreasonable for ratemaking purposes herein.⁸³ We consider it unnecessary to reiterate our findings in that regard. We conclude, for those same reasons, that the proposed adjustment to the Company's test year operating income should likewise be denied.

E. Adjustment to Operating Supplies and Expenses

The Company proposed to adjust the operating supplies included in its test year expenses to a level intended to reflect the cost of those supplies as of the end of the test period. The proposed adjustment would have increased test year expenses by \$1,679,000, as allocated to South Carolina retail electric operations, and was computed by the application of a six percent (6%) factor to the supplies charged to expenses during the test year. (Tr., Vol. 8, Stimart, p. 93)

The Commission Staff recommended the elimination of the proposed adjustment on the grounds that the existing regulatory devices traditionally adopted by the Commission provide reasonable and fair means of addressing the effects of attrition. (Tr., Vol. 17, Hammond, p. 27) The Consumer Advocate's witness Galligan also recommended the disallowance of the proposed adjustment. (Tr., Vol. 25, Galligan, pp. 137-139)

⁸³See, supra, pp. 32-34.

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The Commission has heretofore rejected the proposed implementation of an "inflation adjustment" to test year operating and maintenance expenses based upon the mere application of a percentage increase in a price index.⁸⁴ Nothing in the record of this proceeding has persuaded us to depart from that determination. As we have previously indicated in this Order, the Commission has approved a number of well-accepted ratemaking mechanisms which operate to reduce the effects of attrition, which encourage efficiency of operations, and which are more identifiable and measurable than the approach proposed by the Company herein.⁸⁵ Accordingly, the Commission will herein adopt the position recommended by the Commission Staff and the Consumer Advocate and refuse to allow the adjustment proposed by the Company.

F. Expense for Research and Development Programs

The Company proposed an adjustment of \$321,000, as allocated to South Carolina retail electric operations, to operating and maintenance expenses to annualize certain expenditures for participation in research and development programs. The amount of the adjustment was computed in accordance with a formula approved by the Electric Power Research Institute and which is applied to KWH sales and electric operating revenues for the twelve months ending June 30, 1979. (Tr., Vol. 12, Stimart, pp. 21-22) According to the Company's witness Stimart, the expenses so computed will not actually be paid until 1980. (Tr., Vol. 8, Stimart, p. 110)

The Commission Staff recommended that the Commission disallow the adjustment for research and development expense proposed by the Company, based upon the reasoning that the expenses would not be paid until 1980, well outside the test period in this proceeding, and that such expense was not measurable. (Tr., Vol. 17, Hammond, p. 28)

⁸⁴See, Order No. 79-230, supra, at pp. 60-61.

⁸⁵See, supra, at pp. 55-56.

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The Commission has previously allowed the treatment of research and development expenses for ratemaking purposes when such expenses were actually incurred or paid during the test period under review.⁸⁶ The Commission feels that the nature of research and development programs justifies a special consideration for expenditures outside the test year, even though such expenditures may be anticipated and capable of measurement. While participation in reasonable research and development programs may well operate to the prospective benefit of a utility's customers, the character of such programs requires an opportunity for analysis based upon a review of the actual programs and associated expenditures rather than future or speculative ones. Consequently, the Commission will herein adopt the treatment of the additional research and development expenses proposed by the Staff and disallow such unpaid expenses for the purposes of this proceeding.

G. Customer Growth

The Company, the Commission Staff, and the Consumer Advocate proposed adjustments to reflect increased KWH sales and related expenses attributable to customer growth during the test period. (Tr., Vol. 8, Stimart, pp. 94-95; Vol. 1, Hammond, p. 19; Vol. 25, Galligan, pp. 140-141) The adjustment for customer growth is intended to incorporate changes in KWH sales and related expenses to reflect the Company's operation as of the end of the test period. This Commission has consistently approved adjustments for customer growth to conform as nearly as possible a utility's operations with the prospective period during which rate adjustments would be effective.

⁸⁶See, e.g., Order No. 78-404, supra, at p. 48.

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The Company's computation of the adjustment for customer growth incorporated separate adjustments to operating revenues, fuel expense, operating and maintenance expense and general taxes in order to determine the effect on the test year net operating income. The Commission Staff's calculation of the effect of customer growth was undertaken in accordance with the methodology previously adopted by this Commission for ratemaking purposes and consistently applied by the Staff.⁸⁷ The Consumer Advocate's adjustment was predicated upon the growth in the historic usage per customer for the 1969-1979 period.

Based upon the record of this proceeding, the Commission is of the opinion, and so finds, that the methodology employed by the Staff should be approved in this matter. As a consequence, the Company's test year net operating income for return, as adjusted herein, will include an amount for customer growth of \$817,000, as computed by the Staff.

H. Adjustment for Tax Savings from
Interest Expense

The Company, the Commission Staff and the Consumer Advocate proposed separate adjustments to recompute the test year income tax expense to annualize the tax savings associated with interest expense. The revenue necessary to produce the overall rate of return approved herein includes, inter alia, an amount of the total income for return required to service the Company's debt capital. For the purposes of this ratemaking proceeding, however, the Company's State and federal taxes are computed in the cost of service study on the basis of an interest figure which is somewhat lower. Since our determination of the Company's just and reasonable rates and charges allow for the recovery of the interest expense, it is appropriate that the associated taxes for the annualized interest be adjusted, and that the overall revenue requirement be reduced by the net amount of the difference.

⁸⁷ See, Hearing Exhibit No. 9 (Accounting Department), p. 20.

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The differences in the amount of the adjustment among the Company, the Commission Staff and the Consumer Advocate were attributable to the capital structure used for ratemaking purposes by the respective parties of record and the Commission Staff and the respective rate base components used. The adoption herein of the capital structure and embedded cost of debt as of April 30, 1980, and of the South Carolina retail electric rate base herein, will produce an adjustment to income for return of \$6,491,000, as allocated to the Company's South Carolina retail electric operations, which is herein approved.

I. Miscellaneous General Expense (Account 930.2)

The Commission Staff proposed an adjustment to the Company's expenses based upon its sample of the Company's expense vouchers for the test period. An amount of \$36,000, as allocated to South Carolina retail electric operations, was reclassified from Account 930.2, Miscellaneous General Expense, to Account 426, Miscellaneous Income Deductions, an account which includes various membership dues, fees and charitable contributions. (Tr., Vol. 17, Hammond, p. 29) The Staff's adjustment would have the effect of excluding such expenditures from operating expenses, and removing them from consideration in setting fair and reasonable rates. The Company had proposed to charge such expenditures as an operating expense in Account 930.2.

The Commission has previously and consistently treated such expense as a "below the line" item which should not be charged to a utility's ratepayers.⁸⁸ There is nothing in the record of this proceeding to cause us to reevaluate our traditional determination that such expenses are more properly charged to a utility's

⁸⁸See, Order No. 80-375, supra, at p. 61, fn. 91.

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shareholders than to its ratepayers. The Commission consequently finds the adjustment made by the Staff to be reasonable in this proceeding.

In addition, the record of this proceeding indicates that the Company charged certain industry association dues to Account 930.2, which were paid as membership dues to the Edison Electric Institute (hereinafter EEI") during the test period, in the amount of \$1,847,607. The Commission continues to consider such expenses to be allowable for ratemaking purposes, since the projects and programs which the EEI undertakes relate to the provision of electrical utility service.⁸⁹

The Commission finds the remaining expenses included in Account 930.2 to be fairly incurred by the Company for reasonable services and consequently of benefit to the ratepayers.

J. Adjustment for Expenses of Department of Public Affairs

The Commission Staff proposed an adjustment for certain operating and maintenance expenses related to the operation of the Company's Department of Public Affairs. The Staff proposed to reclassify to non-operating accounts some \$8,000 which represented an allocated portion of the test period salary and expenses of the head of that Department who was the Company's registered lobbyist. The Commission Staff's proposed adjustment was founded on an inability to distinguish with certainty the expenses related exclusively to lobbying activities and those related to other functions of the affected Department. (Tr., Vol. 17, Hammond, pp. 29-30)

The Commission has reviewed thoroughly the proposed adjustment, and is of the opinion, and so finds, that the adjustment is reasonable and should be approved for ratemaking purposes herein. The Commission concurs with the rationale advanced by the Commission Staff

⁸⁹See, Hearing Exhibit No. 11.

to the effect that the Company's ratepayers have little effect on the positions and issues advocated by the Company's lobbyist, and that consequently, expenses for lobbying activities should be charged to non-operating accounts, in order that such expenses may be borne by the Company's shareholders rather than by the ratepayers. Where the Company's books and records fail to differentiate adequately the lobbying expenses from other expenses incurred by the person with the formal responsibility for lobbying activities, the Commission considers that the most appropriate response is to reclassify all expenses charged to that individual.⁹⁰

K. Advertising Expense

The Commission Staff proposed the reclassification of certain institutional advertising expenses in the amount of \$163,000, as allocated to the Company's South Carolina retail electric operations, which the Company had charged to operating accounts. (Tr., Vol. 17, Hammond, p. 29) The amount reclassified represented general advertising expenses for purposes other than conservation or information dissemination, and the Commission Staff's adjustment has the effect of eliminating such expenses for ratemaking consideration.⁹¹

This Commission has traditionally adhered to a treatment of advertising expenses which allows for ratemaking purposes only the advertising expenses which were incurred during the relevant test year and which were related to energy conservation or information dissemination.⁹² The Commission does not consider advertising expenses for institutional purposes to be proper expenses to be borne by the ratepayers of a utility. The Commission consequently finds the Commission Staff's adjustment to be appropriate for ratemaking purposes herein.

⁹⁰See, also, Order No. 80-375, supra, at p. 66.

⁹¹The adjustment proposed by the Commission Staff included an advertising expense incurred in 1978 which was the subject of considerable testimony in the Company's preceding ratemaking proceeding. (Tr., Vol. 17, Hammond, p. 32) See, Order No. 79-230, supra, at p. 92, fn. 119.

⁹²See, Id., at p. 67, and the decisions cited at fn. 108.

L. Other Adjustments

The Commission Staff proposed to adjust State and federal income taxes to reflect the effect of the Commission Staff's revenue and expense adjustments. The Commission has considered and adopted the Commission Staff's tax adjustments for the purposes of this proceeding, as well as the effect of the other adjustments adopted herein. All other adjustments to, or treatment of, revenues, expenses, or rate base items proposed by the Commission Staff in its presentation, not specifically addressed herein, have been reviewed by the Commission and found reasonable. Any other adjustments proposed by any other party inconsistent therewith are herein found unreasonable or inappropriate for ratemaking purposes and are hereby denied.

X.

REVENUE REQUIREMENTS

The Company's total income for return on its retail electric operations after accounting and pro forma adjustments is \$117,210,000, which, if divided by the original cost rate base of \$1,265,335,000, as computed in Table C, supra, results in a return on rate base of 9.26%, as of June 30, 1979.

In order to achieve an overall rate of return on jurisdictional operations of 10.21%, which we have found to be fair and reasonable for the test period, in accordance with the reasons expressed herein, the Company would have required an amount of \$129,153,000 total income for return on its retail electric operations.

Total income for return, both before and after the approved increase in the Company's revenues, as found by the Commission, is illustrated in the following table:

TABLE J

TOTAL INCOME FOR RETURN

<u>BEFORE RATE INCREASE</u>	<u>SOUTH CAROLINA RETAIL</u>
Net Operating Income for Return	\$72,221,000
Customer Growth	817,000
Allowance for Funds Used During Construction	34,891,000
Income Tax-Credit	<u>9,281,000</u>
TOTAL INCOME FOR RETURN	<u>\$117,210,000</u>
 <u>AFTER RATE INCREASE</u>	
Total Before Increase	\$117,210,000
Approved Increase (Net of Taxes)	11,810,000
Customer Growth on Approved Increase	<u>133,000</u>
TOTAL INCOME FOR RETURN	<u>\$129,153,000</u>

The revenue requirements found herein are those found reasonable for the Company's South Carolina retail electric operations and which the Commission thereby finds appropriate for the test period, in recognition of the prospective application of the rates so approved. The Commission's approval of rates designed to meet the Company's revenue requirements is predicated upon a full review of the entire spectrum of issues presented in this proceeding and is thereby predicated upon the evidence in the record within the applicable legal parameters.⁹³

Pursuant to the Commission's Directive of March 13, 1979, the Company's Application herein included a certification that the proposed adjustments in rates and charges were in compliance with the applicable price guidelines promulgated by the Council on Wage and Price Stability.⁹⁴

The Commission is of the opinion that the increase in the Company's income for return for its retail electric operations found fair and reasonable herein is consistent with the language and intent of the pertinent anti-inflationary pay and price standards.⁹⁵

⁹³See, e.g., Federal Power Commission v. Hope Natural Gas Company, supra; Southern Bell, supra, and S. C. Code Ann., §§ 58-27-10 et seq. (1976).

⁹⁴See, Hearing Exhibit No. 5.

⁹⁵See, 6 C.F.R. Part 705, et seq.

XI.

PUBLIC UTILITY REGULATORY POLICIES ACT STANDARDS

Pursuant to the provisions of Order No. 79-434, supra, the Commission expressed its intention to address the consideration of the implementation of certain ratemaking standards identified in Section 111(d) and the concept of "lifeline" rates as described in Section 114 of PURPA in the context of this proceeding. The ratemaking standards include cost of service, declining block rates, time-of-day rates, seasonal rates, interruptible rates and load management techniques. During the course of the hearing herein, the Company, the Commission Staff, the Consumer Advocate, and the SCTMA offered testimony and evidence with regard to the described ratemaking standards and pertaining to "lifeline" rates. The Association offered testimony and evidence in support of the adoption of a type of residential "lifeline" rate.

Section 2 of PURPA describes the essential findings and policies of Congress underlying the provisions of the act:

The Congress finds that the protection of the public health, safety, and welfare, the preservation of national security, and the proper exercise of congressional authority under the Constitution to regulate interstate commerce require -

- (1) A program providing for increased conservation of electric energy, increased efficiency in the use of facilities and resources by electric utilities, and equitable retail rates for electric consumers....

The Commission considers that its consistent implementation of traditionally accepted ratemaking principles has served to incorporate the goals of conservation, efficiency and equity expressed in Section 2 of PURPA.⁹⁶

⁹⁶ See, e.g., Order No. 79-230, supra, at p. 79, for a discussion of the objectives traditionally used by the Commission in the allocation of fair revenue requirements and the design of rates and charges for electric service. See, also, Section XII, infra.

Title I of PURPA establishes eleven (11) voluntary federal "standards" which address certain rate design concepts and certain service practices of electric utilities.⁹⁷ Only the ratemaking standards and "lifeline" rates are at issue herein. Title I requires state regulatory agencies, inter alia, to give consideration to the standards and make a determination whether the implementation of the federal standards should be accomplished within their respective jurisdictions to effectuate the purposes of the act. The intent of PURPA is not to modify or remove "the primary responsibility of the States with respect to electric utility rates." However, the act "places certain Federal responsibilities and obligations on the State commissions in the exercise of their responsibilities...."⁹⁸

The Commission has previously reviewed a number of the PURPA ratemaking standards in prior proceedings. Our analysis has been principally undertaken in the context of the generic hearing held in Docket No. 77-2-E, which concerned a variety of rate design and load management issues, including time-of-day rates, customer load control programs, and interruptible rates for electric service. In addition, the Commission has reviewed the reasonableness of seasonal rates and "lifeline" rates for electric utilities in general ratemaking proceedings. The Commission considers that its previous decisions operate to demonstrate substantial consideration or implementation of the appropriate standards.

The Commission's review and determinations relative to the PURPA ratemaking standards and to "lifeline" rates for ratemaking purposes herein appear in the following subsections.

⁹⁷Section 113 of PURPA. 16 U.S.C. §2623 (1978). See, Docket No. 18,605, in which the Commission's disposition of the regulatory standards is pending.

⁹⁸See, Joint Explanatory Statement of the Committee of Conference, Conference Report H.R. Rep. No. 95-1750, 95th Conf., 2d Sess. 67 (1978) (hereinafter "the Conference Report").

A. Cost of Service Standard

Section 111(d)(1) of PURPA provides:

Rates charged by any electric utility for providing electric service to each class of electric consumers shall be designed, to the maximum extent practicable, to reflect the costs of providing electric service to such class....

The record of the instant proceeding indicates considerable attention to the nature and effect of various economic theories designed to provide for the recovery of the costs of providing electric service.

The Company's witness, M. T. Hatley, Jr., Vice President, Rates, indicated that the Company has filed and utilized fully distributed cost of service studies in the design of rates in its recent ratemaking proceedings as well as in the instant proceeding. (Tr., Vol. 12, Hatley, p. 17) The Company's approach has employed the Company's embedded costs to determine the total cost of service, as the aggregate of the separate costs of service for each customer class. The pertinent revenue, expense and rate base items in the Company's cost of service study in this proceeding are separated by demand-related, energy-related and customer-related factors. The demand-related factors were based on the July 1978 coincident peak demand occurring during the month of July 1978. The energy-related factors were calculated by the data from the annual kilowatt-hours delivered from the transmission system. The customer-related factors were based on the average number of customers at the various levels of the system.⁹⁹

The Commission Staff's witness, Dr. Robert M. Spann, analyzed and compared the use of marginal cost and embedded cost methodologies. In addition, Dr. Spann compared the use of an "average and excess method" to the use of the coincident peak method in embedded cost studies. A modified average and excess approach was reviewed "to account for the fact that new, nuclear units generate substantial fuel cost savings in addition to helping to meet peak demands."

⁹⁹ See, Tr., Vol. 19, Bryson, pp. 40-41.

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(Tr., Vol. 20, Spann, p. 27)¹⁰⁰

The Consumer Advocate's witness, Ralph E. Miller, reviewed the cost of service standard and determined, in principle, that the appropriate rate structure to realize the goals of PURPA would be founded on a marginal costing approach. (Tr., Vol. 27, Miller, p. 65) However, in the analysis of the respective class revenue responsibilities, Mr. Miller recommended the utilization of the modified average and excess embedded cost of service study performed by the Commission Staff's witness, Dr. Spann. (Tr., Vol. 27, Miller, p. 70)

The witnesses on behalf of the SCTMA principally addressed the cost of service standard in the context of the embedded costing methodology. Dr. Jay B. Kennedy, Executive Director of the Electricity Consumers Resource Council (hereinafter "ELCON") reviewed the various general methods of determining costs of service. Dr. Kennedy summarized ELCON's position "that rates should be based on today's actually incurred costs, correctly apportioned, and not on costs evaluated by confusing and often confused hypothetical distortions of economic theory." (Tr., Vol. 28, Kennedy, p. 42) The SCTMA's witness, Maurice Brubaker, likewise endorsed the use of the embedded cost methodology. Mr. Brubaker's support of the embedded cost approach was predicated upon the relationship between a utility's overall revenue requirement and its actually incurred costs of service. Furthermore, Mr. Brubaker suggested that the use of embedded cost in the design of utility rates meets the equity criterion of PURPA, encourages conservation of energy and maintains the stability of rates and earnings. (Tr., Vol. 30, Brubaker, pp. 49-50)

¹⁰⁰See, generally, Tr., Vol. 20, Spann, pp. 33-77.

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Mr. Alan Chalfant, the SCTMA's final witness, recommended the adoption of the cost of service standard implemented on the basis of actual or embedded costs of service. (Tr., Vol. 30, Chalfant, p. 118) Consistent with the other witnesses on behalf of the SCTMA, Mr. Chalfant rejected the concept of the implementation of the cost of service standard on a marginal cost basis.

In our review of the description of the special rules for the cost of service in Section 115 of PURPA,¹⁰¹ the Commission considers that the language does not demonstrate a preference for a particular economic theory or costing methodology.¹⁰² (Tr., Vol. 28, Kennedy, pp. 54-55)

Based upon a full review of the record before us in regard to the cost of service standard, the Commission is of the opinion, and so finds, that our previous approval and adoption of the embedded cost methodology for ratemaking purposes should not be disturbed in this proceeding. The Commission considers that the continued implementation of the embedded cost approach best reflects the costs of providing service to each class of service and to the total system. The Commission considers that the economic marginal costing theories are inapposite for ratemaking purposes in this proceeding. We are not convinced by the evidence before us that the described marginal costing theories are reliable for application in the practical context of ratemaking or that the identified marginal costs are reflective of the costs which will be experienced in providing service to a particular class of customer or to the system as a whole.

¹⁰¹ 16 U.S.C. §2625 (1978).

¹⁰² See, Conference Report, at p. 78.

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Furthermore, the Commission considers that the peak responsibility method should be continued in the determination of the Company's embedded costs of service for ratemaking purposes herein. While the Commission is of the opinion that the modified average and excess methodology offers a potentially meaningful contribution to our allocation of additional revenue responsibility, we are not convinced that the method adequately addresses the peak responsibility without some distortion of the relative contributions of the classes of service to the overall peak demand. Based upon the evidence herein, the Commission finds that the implementation of our previously approved methodology which preserves a reasonable continuity of rate design and revenue allocation is more reasonable.

However, in order to provide the further opportunity to evaluate the applicability and propriety of the various cost of service methodologies described herein for the practical environment of ratemaking, the Commission will direct the Company to prepare and file in the context of its next ratemaking proceeding schedules of rates and charges based on those three (3) basic methodologies: an allocation of the embedded costs of service based on peak responsibility, an allocation of the embedded costs of service based on the modified average and excess method and an allocation of the costs of service based on a marginal cost analysis. The Commission considers that such requirement will enable the Commission, the Commission Staff and the parties of record to assess more competently the relative advantages and disadvantages of each cost of service approach.

B. Declining Block Rates Standard

Section 111(d)(2) of PURPA provides that

The energy component of a rate, or the amount attributable to the energy component in a rate, charged by any electric utility providing electric service during any period to any class of electric consumers may not decrease as kilowatt hour consumption by such class increases during such period except to the extent that such utility demonstrates that the costs to such utility of providing electric service to such class which costs are attributable to such energy component decrease as such consumption increases during such period.

The Company's witness Hatley indicated that the Company's present and proposed residential rates are not declining block rates since they incorporate a constant energy component of 1.35¢ per KWH. (Tr., Vol. 12, Hatley, p. 17) The Commission Staff's witness Spann (Tr., Vol. 20, Spann, p. 92) and the Consumer Advocate's witness Miller (Tr., Vol. 27, Miller, p. 76) likewise acknowledged the nature of the Company's existing and proposed residential rates.¹⁰³

The Commission Staff's witness Spann indicated that the Company's proposed general service and industrial service rates incorporated a declining block feature, although he likewise noted that the decline in the charge for additional energy for customers with a load factor of 55 or more was relatively minimal. (Tr., Vol. 20, Spann, p. 92)

The record before us reveals considerable testimony in regard to the relative costs of service for customer classes. Principally, the witnesses for the SCTMA indicated significant cost differentials attributable to customers with large usage patterns and high load factors.¹⁰⁴ Based upon a review of that record, the Commission considers the Company's present and proposed rates to meet fairly the declining block rates standard, since where such rates include declining block features, the Commission finds the costs of service to likewise decline.

C. Time of Day Rates Standard

Section 111(d)(3) of PURPA provides that

The rates charged by any electric utility for providing electric service to each class of electric consumers shall be on a time-of-day basis which reflects the costs of providing electric service to such class of electric consumers at different times of the day unless such rates are not cost-effective with respect to such class as determined under Section 115(b).

¹⁰³ The Consumer Advocate's witness Miller's conclusion was premised on the assumption that the declining block rate standard did not encompass the basic facilities charge.

¹⁰⁴ See, e.g., Tr., Vol. 28, Kennedy, pp. 39-41; Vol. 30, Phillips, pp. 85-89). See, also, Tr., Vol. 20, Spann, pp. 92-94.

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The companion "special rule" for consideration of time-of-day rates in Section 115(b) provides:

Time-of-Day Rates. In undertaking the consideration and making the determination required under Section 111 with respect to the standard for time-of-day rates established by Section 111(d)(3), a time-of-day rate charged by an electric utility for providing electric service to each class of electric consumers shall be determined to be cost-effective with respect to such class if the long-run benefits of such rate to the electric utility and its electric consumers in the class concerned are likely to exceed the metering costs and other costs associated with the use of such rates.

The Company's witness Hatley indicated that the Commission has previously approved a time-of-day rate for its residential class of service.¹⁰⁵ The Company is likewise in the process of the analysis of data relative to the experimental time-of-day rates for general service and industrial service previously directed by the Commission.¹⁰⁶ (Tr., Vol. 12, Hatley, pp. 17-18).

The Commission Staff's witness Spann conducted an extensive analysis of the design and application of time-of-day rates. (Tr., Vol. 20, Spann, pp. 78-89) Dr. Spann's analysis confirms our previous determinations of the potential benefits to be achieved by an effective implementation of the time-of-day rate concept in terms of load management, operating efficiency, cost reductions and energy prices.

The Commission will herein expect the Company to encourage its customers to participate in the implementation of its existing time-of-day rate program. More extensive participation in the program may provide measurable benefits to the Company

¹⁰⁵See, Order No. 80-57, issued on January 28, 1980, in Docket No. 80-15-E, IN RE: Application of Duke Power Company.

¹⁰⁶See, Order No. 77-690, issued on October 11, 1977, in Docket No. 77-2-E, IN RE: Petition of Commission Staff, etc.

and its customers and operate to enable the Company to achieve more effectively its load management goals.¹⁰⁷ In addition, we will likewise anticipate that the Company will intensify its development of a time-of-day rate program for its general service and industrial classes of service.¹⁰⁸

Our encouragement of the development and extension of time-of-day rate programs are intended to reflect our conclusion that where the costs of service vary according to the time of energy usage, rates should correspondingly vary, where it can be determined to be practical and economic to do so. The intent of such rate design is to recover the costs of service not to effect changes in usage patterns or utility operating characteristics. (Tr., Vol. 28, Kennedy, p. 71).

D. Seasonal Rates Standard

Section 111(d)(4) of PURPA provides that

The rates charged by an electric utility for providing electric service to each class of electric consumers shall be on a seasonal basis which reflects the costs of providing service to such class of consumers at different seasons of the year to the extent that costs vary seasonally for each utility.

The Company's time-of-day rates incorporate a seasonal differential feature. (Tr., Vol. 12, Hatley, p. 18). The Commission concurs with the statements of the Commission Staff's witness, Dr. Spann, and the Consumer Advocate's witness, Mr. Miller, that additional seasonal rates for the Company would not be cost-justified at the present time.¹⁰⁹

¹⁰⁷ See, Tr., Vol. 20, Spann, p. 89; and Tr., Vol. 2, Lee, p. 49.

¹⁰⁸ Cf., Tr., Vol. 27, Miller, pp. 50-53.

¹⁰⁹ See, Tr., Vol. 20, Spann, pp. 90-91; and Tr., Vol. 27, Miller, pp. 54-55.

E. Interruptible Rates Standard

Section 111(d)(5) of PURPA provides that

Each electric utility shall offer each industrial and commercial electric consumer an interruptible rate which reflects the cost of providing interruptible service to the class of which such consumer is a member.

The Commission has previously approved a schedule of rates for interruptible power for certain industrial and commercial services.¹¹⁰ (Tr., Vol. 12, Hatley, p. 18) The Commission considers that the existing interruptible power provisions substantially implement the interruptible rate standard. While interruptible power service may not be effective in a broad class of service, in those situations in which interruptible power is compatible with the industrial or commercial requirements of the user, there may be measurable benefits for all classes of service. (Tr., Vol. 28, Kennedy, p. 81)

F. Load Management Techniques Standard

Section 111(d)(6) of PURPA provides

Each electric utility shall offer to its electric consumers such load management techniques as the state regulatory authority...has determined will --

- (A) Be practicable and cost-effective, as determined under Section 115(c),
- (B) Be reliable, and
- (C) Provide useful energy or capacity management advantages to the electric utility.

The associated special rule for consideration of the load management techniques standard is established by Section 115(c) of PURPA:

¹¹⁰ See, Order No. 79-255, issued on June 5, 1979, in Docket No. 79-166-E, IN RE: Application of Duke Power Company.

Load Management Techniques. In undertaking the consideration and making the determination required under Section 111 with respect to the standard for load management techniques established by Section 111(d)(6), a load management technique shall be determined, by the state regulatory authority or nonregulated electric utility, to be cost-effective if--

- (1) Such technique is likely to reduce maximum kilowatt demand on the electric utility, and
- (2) The long-run cost savings to the utility of such reduction are likely to exceed the long-run costs to the utility associated with implementation of such technique.

The Company is involved in a number of programs designed to reduce demand by a substantial figure by 1989. (Tr., Vol. 2, Lee, p. 49; Vol. 3, Lee, pp. 12-15)¹¹¹ Those programs include retail rate schedules providing for interruptible service to residential water heaters and air conditioners. (Tr., Vol. 12, Hatley, p. 18) The existing rate schedules provide for a rate discount for the participating customers in the load control program.¹¹²

The Commission concurs with the recommendations of the Commission Staff's witness, Dr. Spann, and the Consumer Advocate's witness, Mr. Miller, who urge the implementation by the Company of positive and effective load management opportunities for its customers. (Tr., Vol. 20, Spann, pp. 27-28; Vol. 27, Miller, p. 57) The Commission anticipates that the Company will actively and vigorously pursue its load management options to reach the goals articulated by Mr. Lee to reduce the forecasted peak demand and enhance the Company's reserve margins in the late 1980's.¹¹³

G. "Lifeline" Rates

Section 114(a) of PURPA provides

¹¹¹ See, also, Hearing Exhibit No. 1, Data Request II, item 18.

¹¹² See, Order No. 79-255, supra.

¹¹³ See, Table B, supra, at p. 16.

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LOWER RATES - "No provision of this title prohibits a State Regulatory Authority (with respect to an electric utility for which it has ratemaking authority) ---from fixing, approving, or allowing to go into effect a rate for essential needs (as defined by the State regulatory authority...of residential electric consumers which is lower than a rate under the standard referred to in Section 111 (d)(1).

The record of the instant proceeding contains considerable testimony with regard to the "lifeline" rate provision of PURPA.¹¹⁴ During the course of the hearing, the Association filed a written motion and offered oral argument, whereby it sought certain relief in the nature of the adoption of a "lifeline" rate with a reduced rate level for "essential use" established at 350 KWH per month. (Tr., Vol. 31, pp. 71-79)

The Commission is not persuaded by any competent evidence herein that the proposed "lifeline" rate should be adopted for ratemaking purposes in this proceeding. The testimony of the witnesses for the Company, the Commission Staff, the Consumer Advocate and the SCTMA leave the Commission with serious doubts with regard to the cost justification of the Association's proposal, with regard to the relationship between income level and energy usage, and with regard to the realization of the intent of the Association that those consumers who required assistance for essential uses of energy would actually benefit by the proposal.

Furthermore, the Commission notes that the Commission Staff's witness, Dr. Spann, and the Consumer Advocate's witness, Mr. Miller, indicated that the previously approved inverted residential rate design, which is retained herein,¹¹⁵ incorporates certain features

¹¹⁴ See, e.g., Tr., Vol. 20, Spann, pp. 99-103; Vol. 21, Spann, pp. 60-76; Vol. 22, Spann, pp. 4-50; Vol. 27, Miller, pp. 82-86.

¹¹⁵ See, Section XII, infra.

of a "lifeline" rate. (Tr., Vol. 20, Spann, p. 103; Vol. 27, Miller, p. 85)

In the final analysis, the Commission considers that further analysis needs to be made in regard to the nature and scope of "lifeline" rates before the concept may be implemented in this jurisdiction.¹¹⁶

In light of our analysis herein, the Commission is of the opinion, and so finds, that the substantive relief sought by the Association's motion should be denied. Furthermore, we decline herein to direct the Commission Staff to finance a study of the concept of "lifeline" rates by the Association.

XII.

ALLOCATION OF REVENUES

The revenue requirements of the Company having been determined,¹¹⁷ the Commission is also concerned with the determination of the specific rates and the development of the rate structure that will yield the required revenues. It is generally accepted that proper utility regulation requires the exercise of control over the rate structure to ensure that equitable treatment is afforded each class of customer.

The three principal criteria of a sound rate structure have been delineated as follows:

...(a) the revenue-requirement or financial-need objective, which takes the form of a fair-return standard with respect to private utility companies; (b) the fair-cost-apportionment objective, which invokes the principle that the burden of meeting total revenue requirements must be distributed fairly among the beneficiaries of the service; and (c) the optimum-use or consumer-rationing objective, under which the rates are designed to discourage the wasteful use of public utility services while promoting all use that is economically justified in view of the relationships between cost incurred and benefits received.

Bonbright, Principles of Public Utility Rates (1961), p. 292.

¹¹⁶Our disposition of the substance of this issue will have the effect of denying the motion of the Association for the recovery of the costs incurred and the attorneys' fees submitted herein. We have not approved the position advocated by the Association which precludes its eligibility for the recovery of such costs and fees. 26 U.S.C. §2632 (1978).

¹¹⁷See, Section X, supra, at pp. 71-72.

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These rate design criteria have been traditionally applied by the Commission in ratemaking proceedings and are incorporated in our determinations herein. As we have previously observed, the Commission considers that these objectives reflect the goals of PURPA of efficiency, equity and conservation.¹¹⁸

The Company's Application in this proceeding proposed to increase the Company's approved base rates as of the date of filing, August 1, 1979, by approximately 6.76%, which would have generated additional annual revenues of approximately \$25,819,000. The rate schedules proposed by the Company would result in slight variations in the percentage increase in revenue among the customer classifications: the revenues from the residential class would have increased by 6.82%; the revenues from the general service class would have increased by 6.58%; and the revenues from the industrial service class would have increased by 6.84%.¹¹⁹

The Company's witness M. Thomas Hatley, Jr., Manager of the Company's Rate Department, described several objectives which influenced the scope and proposals of the Company's rate design. The Company's overall rate structure is designed basically to recover from each customer class the costs of providing service to that class. The proposed rates reflected a variety of additional objectives, including the maintenance of rate parity between the Company's similar customer classes in South Carolina and in North Carolina, which would produce identical bills at a given consumption level. Furthermore, the Company sought to preserve the return relationships among the rate classifications previously approved by the Commission. (Tr., Vol. 12, Hatley, pp. 21-23) The Company's rate design proposals demonstrated

¹¹⁸Supra, at p. 73.

¹¹⁹Hearing Exhibit No. 9 (Electric Department), p. 16. The proposed increases varied among sub-groups within the customer classes. For example, the revenue increase was 6.86% for Regular Water Heating customers and 6.5% for Residential Conservation Rate customers.

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the intent to continue an element of the Company's load management program by the maintenance of the residential conservation (RC) rate.

The cost of supplying electricity to different customers is a function of many factors and variables. The allocation of these costs among the different classes of customers represents a complex task, since many of the total costs of producing energy are common to all customers. The procedure consistently used by this Commission in analyzing utility costs in the context of the review of rate design provides for the assignment of the distribution of total costs among three major categories based on (1) costs that are a function of the total number of customers, (2) costs that are a function of the volumes of the service supplied or energy costs, and (3) costs that are a function of the service capacity of plant and equipment in terms of capability of carrying hourly or daily peak loads or demand costs.

The Company's jurisdictional cost allocation study¹²⁰ and the Company's fully distributed cost of service study for the test period provided the most current foundation for an analysis of the relative rates of return among the retail classes of service. In addition to illustrating the actual costs of service, these cost studies reflect the varying deviations in the rates of return from each class of service from the overall Company rate of return. (Tr., Vol. 19, Bryson, pp. 39-42) The Commission has traditionally found such cost studies to be essential in the evaluation of the fairness and reasonableness of revenue allocations among the classes of customers of electrical utilities.¹²¹ As we have previously indicated herein, the record

¹²⁰Hearing Exhibit No. 1, Data Request I, item 64.

¹²¹See, Order No. 79-230, supra, at p. 82 and the decisions cited at fn. 109. See, also, Order No. 80-375, supra, at pp. 74-75.

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of this proceeding has served to confirm our previous observations with respect to the advantages of cost of service studies developed in a manner consistent with the use of fully allocated embedded costs.¹²²

The Commission has endeavored to derive equitable, lawful and reasonable rates of return for each customer class in comparison with the rate of return earned for each other customer class, and with the total company rate of return. The rate and charges herein approved incorporate features designed to achieve the objectives heretofore deemed appropriate and proper.

The Commission has repeatedly stated its recognition that increases in utility rates may be felt more dramatically by the very low usage customer. However, in our determination that rate structures of jurisdictional utilities follow, to the fullest extent reasonable, their respective costs of service, by which each customer class sustains an equitable portion of those costs associated with providing proper service to that class, it becomes impossible to provide special relief to a single class of customers through the rate design without creating serious inequities elsewhere. The Commission's concern is in the establishment of a rate structure which provides that all customers bear fairly their proportionate share of the costs of service.

The Company has requested an increase in revenues of \$25,819,000, and has submitted proposed rate schedules which would produce that amount of additional revenue. The Commission has determined that the Company should be allowed additional revenues of \$23,369,000, rather than the amount requested, a reduction of some \$2,450,000.

¹²² See, supra, at pp. 75-78.

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The Commission must assume, therefore, the responsibility for the identification of the manner in which the Company's rate schedules should be redesigned to incorporate our findings herein and reflect the increased revenues herein approved. The Commission acknowledges the complexity of the task. The relevant principles characterized in this discussion and the testimony and exhibits in the record of this proceeding have been fully considered in reaching our findings. The Commission has analyzed the Company's proposed rates and has incorporated our determination of the proper increase in revenues in the derivation of equitable, lawful and reasonable rates of return for each customer class, generally in comparison with the rate of return earned for each other customer class, and with the total Company rate of return.

The Commission has considered a spectrum of factors in its deliberations as to the appropriate allocation of rates in accordance with our finding of a lawful rate of return for the Company. Clearly, cost factors play a prominent role in the identification of the constituent elements of a fair and reasonable rate design, but cost cannot be used as the sole determinant.

In approving the increases in the Company's various classes of service, as illustrated in Table K, infra, the Commission has undertaken to recognize and reconcile the Commission's consistent ratemaking objectives to meet the revenue requirements found fair and reasonable and to promote fairly the intent to meet the appropriate and proven costs of service. The revenue increases appearing in Table K will be applied to each class of service, as more fully delineated herein, and the Company will be required to file appropriate rate schedules for the approval of the Commission within ten (10) days of the date of this Order.

TABLE K

APPROVED INCREASE BY CLASS

<u>CLASS OF SERVICE</u>	<u>APPROVED INCREASE</u>
Residential Service	
Regular (R)	\$ 663,000
With Approved Water Heating (RW and RWX)	2,849,000
All Electric (RA and RAX)	2,296,000
Conservation (RC)	<u>40,000</u>
	<u>\$ 5,848,000</u>
General Service	
Regular (G)	\$ 2,999,000
Water Heating (W)	9,000
All-Electric (GA and GAX)	2,301,000
Cotton Gins (9)	1,000
Building Construction (BC)	34,000
Traffic Signal (TS)	6,000
Outdoor Lighting (T, TZ, TZX)	<u>122,000</u>
	<u>\$ 5,472,000</u>
Industrial Service	
Regular (I)	\$11,158,000
Parallel Operation (IP)	<u>891,000</u>
	<u>\$12,049,000</u>
Total Jurisdictional (Retail Electric)	<u>\$23,369,000</u>

The record herein demonstrates that the parties devoted considerable attention to the design and effect of the rates for the Company's residential class of service. The Company's proposals included an increase in the basic facilities charge from the currently approved \$4.30 to \$4.48 per month for each residential customer¹²³ and the retention of the inverted rate design, with the same percentage differential authorized in Order No. 79-230.

¹²³The Company's witness Hatley indicated that the Company's cost of service study demonstrated that the actual customer-related costs approximated \$6.00 per bill. (Tr., Vol. 12, Hatley, pp. 10-11)

Based upon the record of this proceeding, the Commission is of the opinion, and so finds, that the minimal adjustment proposed for the basic facilities charge should not be approved in this proceeding. The Commission further finds that the inverted rate design previously authorized for the Company's residential class of service should be retained herein.

After full consideration of the evidence in the record before us and based upon our evaluation of the applicability of the principles of ratemaking, the Commission is of the opinion, and so finds, that fair and reasonable rates and charges for the Company's residential class of service are the following:

Rate R

Rate Per Month

Basic Facilities Charge	\$4.30
Plus Energy Charge:	
First 1000 KWH at	\$0.039387 per KWH
Excess Over 1000 KWH at	\$0.043451 per KWH

Rates RW and RWX

Rate Per Month

Basic Facilities Charge	\$4.30
Plus Energy Charge:	
First 1000 KWH at	\$0.035751 per KWH
Excess Over 1000 KWH at	\$0.039452 per KWH

Rates RA and RAX

Rate Per Month

Basic Facilities Charge	\$4.30
Plus Energy Charge:	
First 1000 KWH at	\$0.032622 per KWH
Excess Over 1000 KWH at	\$0.036010 per KWH

Rate RC

Rate Per Month

Basic Facilities Charge	\$4.30
Plus Energy Charge:	
First 1000 KWH at	\$0.031959 per KWH
Excess Over 1000 KWH at	\$0.035281 per KWH

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The fuel component in the base rates as approved herein would reflect the authorized \$0.01225 per KWH.¹²⁴ The Commission will additionally direct the Company to apply the average residential class revenue increase to the currently effective time-of-day rates for residential service.

Furthermore, in accordance with the recommendations of the Commission Staff's witness, A. R. Watts, Utilities Engineer II in the Electric Department, the Commission will herein require the Company to include in its next ratemaking application provisions to separate the customer component of costs for its general service and industrial service classes and provide for the recovery of such costs through an appropriately designed basic facilities charge. (Tr., Vol. 20, Watts, p. 9) We will likewise direct the Company to consolidate and reduce the number of rate blocks in the general service and industrial service rate schedules in its next ratemaking application by combining the "adjacent, closely-costed levels of consumption." (Tr., Vol. 20, Watts, pp. 9-10)

The Company will herein be required to file for approval within ten (10) days of the date of this Order revised residential rate schedules as specified herein. In addition, the Company will be required similarly to file for approval rate schedules for all other classes of customers to reflect the increase in revenues as illustrated in Table K, supra, using the rate design incorporated in the Company's Application herein.

¹²⁴See, Order No. 80-362, issued on May 28, 1980, in Docket No. 77-394-E, supra.

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When filed in compliance with the terms of this Order and approved by the Commission, the rate schedules will be effective for electrical bills rendered on and after September 1, 1980. The rates in effect pursuant to the Company's Undertaking, dated September 5, 1979, will therefore remain in effect for bills rendered prior to September 1, 1980.

The rates in effect pursuant to the Company's Undertaking are to be cancelled upon the effective date of the rates approved herein. The Commission finds that the rate design of those rates so placed in effect pursuant to the Undertaking was reasonable and fair for the period of time during which the rates were collected. The Commission, however, has found herein that the revenues produced by the bonded residential rates were unreasonable and excessive. Pursuant, therefore, to the terms of S. C. Code Ann., § 58-27-880 (1976), the Commission must prescribe the manner in which the refund of the excess revenues, as herein determined should be made.

The Company is hereby directed to refund to its affected residential customers the difference between the rates approved in this proceeding and the rates placed into effect pursuant to the Company's Undertaking approved by the Commission in Order No. 79-326, as adjusted for the approved fuel component.¹²⁵ The Company will be directed to refund by credit to each affected existing customer, or by direct payment to affected former customers, the appropriate refund with interest at nine percent (9%) per annum in accordance with the terms of the Undertaking. Furthermore, the Company is hereby directed to accomplish the refund operation, to certify the completion of the refunds, and to file with the Commission the appropriate calculations illustrating such action, with the refund and interest shown separately.

¹²⁵The approved fuel component in the Company's base rates for the period June 1, 1979, through May 31, 1980, was \$0.0135 per KWH. See, Order No. 79-230, supra; and Order No. 79-672, issued in Docket No. 77-394-E on November 30, 1979. For the period June 1, 1980, through November 30, 1980, the approved fuel component is \$0.01225 per KWH. See, Order No. 80-326, supra.

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XIII.

MISCELLANEOUS ISSUES

The record of this proceeding reveals a general matter which is more properly addressed separately than in the context of any preceding section of this Order.

The Intervenor Joey Davis filed a written Motion, dated July 21, 1980, seeking certain substantive relief related to various operations of the Company. The Motions, inter alia, requested the Commission to direct the Company to secure competitive bids for legal services and other professional services, and to maintain records of personal business conducted by Company officers and employees. The Motions likewise sought a prohibition of the participation of Company employees in the activities of charitable organizations. The Motions further asked the Commission to request certain executives of the Company to reduce voluntarily their salaries. In addition, the Motions requested the Commission to disallow for ratemaking purposes certain expenses incurred for participation by members of the Board of Directors in Directors' meetings. The Intervenor's Motions likewise requested the implementation of time-of-day rates and "lifeline" rates.¹²⁶ The Motions continued by requesting the issuance of orders prohibiting the Company from "investigating" parties in proceedings before the Commission, directing the Company to take certain actions with regard to the protection of dogs and other animals belonging to the Company's customers, and prohibiting rate adjustment proceedings which involve less than a ten percent (10%) increase in annual revenue. The Motion finally requested the denial of the relief sought by the Company's Application herein.

¹²⁶ See, Section XI, supra.

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The Commission's previous actions in this Order have disposed of several issues raised by the instant Motions. The Commission finds no basis in fact or law to justify the remaining relief sought by the Intervenor. Consequently, those matters not previously addressed herein will be dismissed.

XIV.

FINDINGS AND CONCLUSIONS

Based upon the foregoing considerations and after a full review of the testimony and exhibits presented in this proceeding by the Company, the parties of record, and the Staff, the Commission has made the following findings and reached the following conclusions concerning the operations, the rate of return and the reasonable requirements for earnings to be allowed the Company for its South Carolina retail electric operations:

1. That Duke Power Company is an electric utility, providing electric service, both retail and wholesale, in a service area within South Carolina, and its retail electric operations in South Carolina are subject to the jurisdiction of this Commission, pursuant to S. C. Code Ann., §58-27-10 et seq. (1976);

2. That the Company's present construction budget for the next nine years estimates expenditures of \$12,591,000,000; that the construction of generating capability should be planned and designed at the minimum to meet annual peak loads; that based on the peak load forecasts entered in the record of this proceeding, the Company's present plans for construction of generating facilities are sufficient to meet the projected needs of its customers, which the Commission herein finds reasonable;

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3. That the appropriate test period for the purposes of this proceeding is the twelve-month period ending June 30, 1979;

4. That the Company is seeking an increase in its rates and charges to its retail customers that would produce additional revenues for the test period of \$25,819,000;

5. That a year-end, original cost, South Carolina retail electric rate base of \$1,265,335,000, consisting of the components set forth in Section V of this Order, as adjusted, in Table C, should be adopted for ratemaking purposes herein.

6. That the capital structure, as adjusted, set forth in Table E of Section VI, should be approved;

7. That the embedded cost of long term debt, as of April 30, 1980, is set forth in Table F; that the Company's debt coverage ratio of earnings to fixed charges is set forth in Table G; that the Company's embedded cost of preferred and preference stock, as of April 30, 1980, is set forth in Table H;

8. That the evidence provided a range for rate of return on common equity between 12.00% and 15.00%; that a fair and proper return on common equity for the Company falls within the range of 12.50% to 13.00%, and that the rate of return of 12.50% on common equity, produced by the additional revenues of \$23,369,000, as approved, is fair and reasonable;

9. That the Company's embedded cost rate for debt of 9.17% and the Company's embedded cost rate for preferred and preference stock of 8.20% and a cost rate of 12.50% on common equity should be used in the determination of a fair overall rate of return;

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10. That the accounting and pro forma adjustments set forth in Section IX are reasonable and proper and should be adopted;

11. That the rate of return on the Company's South Carolina retail electric operations, during the test period, after accounting and pro forma adjustments, and prior to any rate adjustment was 9.26%;

12. That the total income for return allocated to South Carolina retail electric operations, after accounting and pro forma adjustments and prior to rate adjustments, was \$117,210,000 for the test period; and that such amount of income is insufficient based on the reasonable rate of return found in this proceeding;

13. That approval should be given for rates which will provide additional gross revenues to the Company of \$23,369,000, on its South Carolina retail electric operations, which will produce an additional net income after taxes for return of \$11,810,000;

14. That the additional revenues allowed would produce a rate of return on approved rate base of 10.21% on South Carolina retail electric operations, which is found to be fair and reasonable;

15. That such additional revenues and the return which these revenues produce are well within the range of reasonableness and fairness, and must be provided if the Company is to meet its statutory requirements to provide adequate, efficient and reasonable service;

16. That the additional revenues would provide the Company the opportunity to earn a rate of return on common equity allocated to South Carolina retail electric operations of 12.50%;

17. That the continued implementation of the peak responsibility method for the determination of the Company's embedded costs for ratemaking purposes herein represents reasonable implementation of the standard identified in Section 111(d)(1) of PURPA; that, further, the Company should be directed to incorporate in its next general ratemaking application rate schedules for its classes of service designed on the cost methodology used herein and on the basis of the modified average and excess method described in this proceeding and on the basis of marginal costing principles;

18. That the Company's rate structure represents reasonable implementation of the standard identified in Section 111(d)(2) of PURPA, Declining Block Rates;

19. That the Company's rate structure incorporates the reasonable implementation of the standard identified in Section 111(d)(3) of PURPA, Time-of-Day Rates;

20. That the Company's rate structure represents reasonable implementation of the standard identified in Section 111(d)(4) of PURPA, Seasonal Rates;

21. That the Company's rate structure represents reasonable implementation of the standard identified in Section 111(d)(5) of PURPA, Interruptible Rates;

22. That the Company's load management programs represent reasonable implementation of the standard identified in Section 111(d)(6) of PURPA, Load Management Techniques;

23. That a "lower rates" for essential needs as described in Section 114 of PURPA should not be adopted herein;

24. That the rate schedules filed for approval by the Company on August 1, 1979, which produce additional revenues of \$25,819,000 are unlawful and unreasonable, and should be denied;

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25. That the Company shall file for approval within ten (10) days of the date of this Order, revised rate schedules to reflect the Commission's determinations herein as fully described in Section XII of this Order;

26. That the rates approved herein shall be effective for bills rendered on and after September 1, 1980, and that the rates in effect pursuant to the Company's Undertaking, dated September 5, 1979, shall remain in effect until September 1, 1980;

27. That the Company make the appropriate refunds to the affected customers of the revenues found to be unreasonable and excessive; that, further, the Company make such refunds as more fully described in Section XII herein; and that, further, the Company file with the Commission the calculations upon which the refunds are accomplished;

28. That the relief requested by the Motions of the Intervenor, Joey Davis, dated July 21, 1980, not otherwise addressed herein, should be denied.

29. That the Company should continue to file with this Commission, as previously ordered, quarterly reports showing:

- (a) Rate of return on approved rate base;
- (b) Return on common equity (allocated to South Carolina retail electric operations)
- (c) Earnings per share of common stock;
- (d) Debt coverage ratio of earnings to fixed charges;

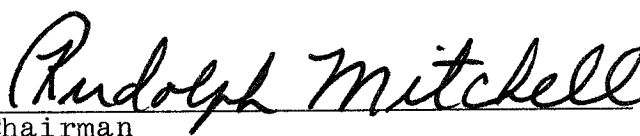
and that, further, such reports should be filed within thirty (30) days of the end of the calendar quarter which is the subject of the report.

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ACCORDINGLY, IT IS ORDERED, ADJUDGED AND DECREED:

1. That the proposed rate schedules filed by Duke Power Company on August 1, 1979, are unreasonable and improper and are hereby denied.
2. That the Company file with the Commission for approval, within ten (10) days of the date of this Order, rate schedules in accordance with the findings contained herein.
3. That the Company make the refunds to its South Carolina retail electrical customers in accordance with the findings contained herein.
4. That the Undertaking, dated September 5, 1979, be cancelled upon certification to the Commission that the refunds ordered herein have been accomplished, pursuant to the findings herein.
5. That the Company file the reports identified herein in accordance with our findings.
6. That the Company include in its next general ratemaking application the rate schedules based on the cost of service.
7. That this Order remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:


Chairman

ATTEST:


Executive Director

(SEAL)